BOARD MEMBERS:
Ms. Mary Nichols, Chair
Ms. Sandra Berg, Vice Chair
Dr. John Balmes
Mr. Hector De La Torre
Mr. John Eisenhut
Senator Dean Florez
Ms. Judy Mitchell
Mrs. Barbara Riordan
Supervisor Ron Roberts
Supervisor Phil Serna
Dr. Alex Sherriffs
Ms. Diane Takvorian

STAFF:
Mr. Richard Corey, Executive Officer
Dr. Alberto Ayala, Deputy Executive Officer
Ms. Edie Chang, Deputy Executive Officer
Mr. Kurt Karperos, Deputy Executive Officer
Ms. Ellen Peter, Chief Counsel
Ms. La Ronda Bowen, Ombudsman
APPARENCES CONTINUED

STAFF:

Dr. Alvaro Alvarado, Air Resources Supervisor I, Research Division (RD)

Mr. Jeff Austin, Staff, Health & Exposure Assessment Branch, RD

Mr. Greg Binder, Chief, Vehicle, Parts & Consumer Products Branch, ED

Ms. Michelle Buffington, Manager, Off-Road Agricultural Strategies and Incentives Section, MSCD

Mr. Peter Christensen, Manager, Innovative Heavy-Dutyl Strategies Section, MSCD

Mr. Bart Croes, Division Chief, RD

Ms. Shannon Downey, Air Resources Engineer, Specialized Fleet Enforcement Section, Enforcement Division (ED)

Mr. Michael Gibbs, Assistant Executive Officer

Mr. Sam Gregor, Manager, Advanced Transportation Incentive Strategies Section, MSCD

Ms. Trish Johnson, Climate Change Policy Section, ISD

Ms. Stephanie Kato, Staff Air Pollution Specialist, Energy Section, Industrial Strategies Division (ISD)

Ms. Deborah Kerns, Senior Attorney, Legal Office

Ms. Margret Kim, Senior Attorney, Legal Office

Mr. Jack Kitowski, Division Chief, Mobile Source Control Division (MSCD)

Ms. Natalie Lee, Air Pollution Specialist, Climate Change Planning Section, ISD

Mr. Jeff Lindberg, Manager, District Support Section, ED

Mr. Aron Livingston, Assistant Chief Counsel, Legal Office
STAFF:
Ms. Lisa Macumber, Manager, Innovative Light-Duty Strategies Section, MSCD
Ms. Karen Magliano, Division Chief, Air Quality Planning and Science Division
Mr. Gabriel, Monroe, Attorney, Legal Office
Ms. Lucina Negrete, Chief, Innovative Strategies Branch, MSCD
Mr. Andrew Panson, Air Pollution Specialist, Innovative Strategies Branch, Mobile Source Control Division
Ms. Rajinder Sahota, Assistant Division Chief, ISD
Mr. Todd Sax, Division Chief, ED
Dr. Linda Smith, Branch Chief, Health and Exposure Branch, RD
Mr. Mark Stover, Chief, Field Operations Branch, ED
Mr. Floyd Vergara, Division Chief, ISD
Mr. Jakub Zielkiewicz, Air Pollution Specialist, Market Monitoring Section, ISD

ALSO PRESENT:
Mr. Alan Abbs, California Air Pollution Control Officers Association
Mr. Nathan Bengtssan, Pacific Gas & Electric
Ms. Kelly Burns, representing Senator McGuire
Mr. Tim Carmichael, SoCalGas
Mr. Nicholas Chavez, California Association of School Transportation Officials, School Transportation Coalition
Mr. Monty Cox, City of Visalia
A P P E A R A N C E S  C O N T I N U E D

ALSO PRESENT:

Mr. Steven Douglas, Alliance of Automobile Manufacturers, Inc.

Mr. Evan Edgar, Compost Coalition, Clean Fleets Coalition

Mr. Anthony Fournier, Bay Area Air Quality Management District

Mr. Randal Friedman

Mr. Jeff Grant, Ballard Power Systems

Ms. Bonnie Holmes-Gen, American Lung Association in California

Mr. Jason Ikerd, San Francisco International Airport

Mr. Shrayas Jatkar, Coalition for Clean Air

Mr. John Larrea, California League of Food Processors

Mr. Kent Leacock, Proterra

Ms. Yoshimi Lee, Mitsubishi Motors

Ms. Julia Levin, Bioenergy of California

Dr. Edward Lovelace, XL Hybrids

Mr. Bill Magavern, Coalition for Clean Air

Mr. Mike Maher, Cummins Pacific

Ms. Lisa McGhee, San Diego Airport Parking

Mr. Fred Minassian, South Coast Air Quality Management District

Mr. Nitin Natesan, Linde, LLC

Mr. Brad Neff, Pacific Gas & Electric

Mr. David Norris, Lakeport Unified School District

Mr. Graham Noyes, Low Carbon Fuels Corporation
APPEARANCES CONTINUED

ALSO PRESENT:
Ms. Rachael O'Brien, Agricultural Council
H.E. Christian "Chris" Peoples, AC Transit
Mr. Michael Pimentel, California Transit and Boeing
Mr. Mike Rea, California Association of School Transportation Officials, School Transportation Coalition
Ms. Kathryn Rees, Southwest Airlines
Ms. Hannah Rozowski-Vogt, Environmental Defense Fund
Ms. Lauren Skiver, Sunline Transit Agency
Mr. Adam Smith, Southern California Edison
Ms. Shelly Sullivan, Climate Change Policy Coalition
Mr. Tim Taylor, Airlines for America
Ms. Moira Topp, Orange County Transportation Authority
Mr. Richard Tree, City of Porterville
Ms. Eileen Tutt, California Electric Transportation Coalition
Ms. Kathy Van Osten, MVM Strategy Group, United Airlines
Ms. Diane Vazquez, Sierra Club California
Mr. Steve Wallauch, Center for Transportation and Environment
Ms. Jeanie Ward-Waller, California Bicycle Coalition
Mr. David Warren, New Flyer of American, Inc.
Mr. Desmond Wheatley, Envision Solar International
I N D E X

<table>
<thead>
<tr>
<th>Item</th>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pledge of Allegiance</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Opening remarks by Chair Nichols</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Item 16-1-1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Chair Nichols</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll Call</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Item 16-1-1(Continued)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Executive Officer Corey</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Staff Presentation</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Andre Freeman</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Ms. Burns</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Mr. Minassian</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Mr. Fournier</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Mr. Maher</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Mr. Tree</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Mr. Cox</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Ms. Rees</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Mr. Taylor</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Ms. Levin</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Ms. Lee</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Ms. Skiver</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Mr. Abbs</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Mr. Douglas</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Mr. Wallauch</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Mr. Peeples</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>Ms. Topp</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>Mr. Warren</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Mr. Natesan</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>Mr. Grant</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Ms. Ward-Waller</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Mr. Carmichael</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Mr. Ikerd</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Mr. Noyes</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Ms. Van Osten</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Mr. Pimentel</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Mr. Leacock</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Mr. Chavez</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Mr. Rea</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Mr. Norris</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>Ms. O'Brien</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>Dr. Lovelace</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>Ms. Vazquez</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Mr. Magavern</td>
<td>78</td>
<td></td>
</tr>
</tbody>
</table>
INDEX CONTINUED

Item 16-6-1 (Continued)

Mr. Jatkar 80
Ms. Holmes-Gen 83
Ms. Tutt 85
Ms. McGhee 86
Mr. Edgar 88
Mr. Wheatley 90

Afternoon Session 141

Item 16-6-3

Vice Chair Berg 141
Executive Officer Corey 141
Staff Presentation 142
Board Discussion and Q&A 162

Item 16-6-2

Chair Nichols 174
Executive Officer Corey 174
Staff Presentation 175
Board Discussion and Q&A 187

Item 16-6-4

Chair Nichols 191
Executive Officer Corey 194
Staff Presentation 196
Ms. Valenzuela Garcia 222
Mr. Neff 225
Mr. Bengtssan 227
Mr. Larrea 228
Mr. Edgar 230
Ms. McGhee 233
Ms. Rozowski-Vogt 235
Mr. Magavern 236
Mr. Smith 237
Mr. Friedman 238
Ms. Sullivan 241

Adjournment 267

Reporter's Certificate 268
CHAIR NICHOLS: Okay. We will now come to order, and begin our formal proceedings with the Pledge of Allegiance.

Please rise.

(Thereupon the Pledge of Allegiance was recited in unison.)

CHAIR NICHOLS: Thank you.

Let me just also mention before we start with the agenda that we will be enforcing the three minute time limit today, that we have cards also for anyone who wants to testify that they can get from the clerk or outside the room.

And I think with that, we are ready to move into the agenda -- oh, I'm supposed to also remind you that there are exits at the rear of the room and on either side here. In the event of an alarm going off, we're required to vacate the room and the building and to assemble outside until we get an all-clear signal.

Okay. So I think we begin with the first item, that's good, which is the proposed fiscal year 2016-17 funding plan for low carbon transportation and fuels investments from the cap-and-trade auction proceeds, and the Air Quality Improvement Program, otherwise known as AQIP. This funding serves as the Air Resources Board's
blueprint -- the funding plan, I should say, is the blueprint for spending the $500 million that the Governor has proposed for low carbon transportation and fuels investments and $28 million for the AQIP incentive projects.

This funding represents a significant investment in zero and near zero emissions technologies, and also supports a substantial investment in low -- in disadvantaged communities with at least half of the low carbon transportation funds allocated to benefit those disadvantaged communities and at least 10 percent invested directly in these communities.

Last year, we received less than our expected budget appropriation, so the program has been operating in a maintenance mode. The proposed plan would allow us to regain momentum for these important technology advancing investments. And while the legislature has not yet acted on the auction proceeds budget, the funding plan shows that there's a strong need and demand for this funding. So we're approving it in advance of having the money actually available to handout. But when the money does become available, we will know where it's going and we'll be able to move it quickly.

So Mr. Corey, would you please introduce this item.
EXECUTIVE OFFICE COREY: Yes. Thank --

BOARD CLERK JENSEN: Chair Nichols, we actually need to still call the roll.

CHAIR NICHOLS: Oh, I apologize. I saw there was a quorum, why do we need to take the roll?

(Laughter.)

BOARD CLERK JENSEN: Details.

CHAIR NICHOLS: Isn't that enough?

(Laughter.)

CHAIR NICHOLS: All right. Please, call the roll, Madam Clerk.

BOARD CLERK JENSEN: Thank you.

Dr. Balmes?

BOARD MEMBER BALMES: Here.

BOARD CLERK JENSEN: Mr. De La Torre?

Mr. Eisenhut?

BOARD MEMBER EISENHUT: Here.

BOARD CLERK JENSEN: Senator Florez?

BOARD MEMBER FLOREZ: Here.

BOARD CLERK JENSEN: Supervise Gioia?

Ms. Mitchell?

BOARD MEMBER MITCHELL: Here.

BOARD CLERK JENSEN: Mrs. Riordan?

BOARD MEMBER RIORDAN: Here.

BOARD CLERK JENSEN: Supervisor Roberts?
BOARD MEMBER ROBERTS: Here.

BOARD CLERK JENSEN: Supervisor Serna?

BOARD MEMBER SERNA: Here.

BOARD CLERK JENSEN: Dr. Sherriffs?

Professor Sperling?

Ms. Takvorian?

BOARD MEMBER TAKVORIAN: Here.

BOARD CLERK JENSEN: Vice Chair Berg?

Chair Nichols?

CHAIR NICHOLS: Here.

BOARD CLERK JENSEN: Madam Chair, we have a quorum.

CHAIR NICHOLS: Well, see?

(Laughter.)

CHAIR NICHOLS: Thank you. I appreciate it. All right. We're going to do this properly. All right. Mr. Corey, would you please introduce this item?

EXECUTIVE OFFICER COREY: Thank you, Chair. So incentive programs are a critical part of our strategy to accelerate the development, deployment, and widespread use of cleaner motor vehicle and equipment technologies. And as we've heard over the past year during the updates on the mobile source strategy, the sustainable freight strategy, and the scoping plan,
meeting our climate, air quality, and petroleum reduction goals will require transformation -- a transformation of the California vehicle fleet to one with widespread use of zero and near zero emission vehicles operating on the cleanest fuels and energy sources, both for the passenger and freight transportation sectors.

The investments in this plan represent an important component of this transformation. Last year, we were unable to implement many of the projects that the Board approved in the funding plan because of the limited budget appropriation. Carrying forward, these unfunded projects is a top priority this year, as is expanding our investments in equity projects benefiting lower income Californians and disadvantaged communities.

The staff proposal also meets anticipated demand for ongoing clean vehicle projects. A new element in this year's proposal is funding to incentivize the production of very low carbon fuels to complement our vehicle and equipment investments.

And also new this year is a long-term plan for the Clean Vehicle Rebate Project and related light-duty incentives. This addresses the requirements of Senate Bill 1275, and responds to the Board's direction to lay out a multi-year vision for these investments and to identify when the zero emission vehicle is expected to be
fully self-sustaining.

While we're investing a considerable amount of money with this plan, we must recognize that ARB's investments are but one piece, one piece, of the State's overall clean air, clean energy, and clean investment portfolio, which includes other State and local agency investments. We've designed our program so it complements, complements, these other programs.

And with that, I'll ask Andy Panson of the Innovative Strategies Branch to give the staff presentation.

Andy.

(Thereupon an overhead presentation was presented as follows.)

AIR POLLUTION SPECIALIST PANSON: Thank you, Mr. Corey. And good morning, Chair Nichols and members of the Board. Today, I'll present staff's proposal for the funding plan for the low carbon transportation and fuels investments and AQIP.

--o0o--

AIR POLLUTION SPECIALIST PANSON: Today's proposal builds on last year's plan, as well as AQIP investments dating it back to 2009. It would continue funding for advanced mobile source technologies to transform the California fleet. Our proposal would also
continue and expand benefits for California's
disadvantaged communities, a key tenet for the State's
cap-and-trade auction proceeds.

As Mr. Corey noted, we're also presenting a
long-term plan for CVRP and the light-duty vehicle
incentives. This will help ensure a sustainable program
moving forward and chart a course for ramping down
incentives as the ZEV market grows.

---o0o--

AIR POLLUTION SPECIALIST PANSON: California
faces ambitious goals to reduce greenhouse gas emissions,
improve air quality, cut toxics exposure, and reduce
petroleum dependency. Today's proposal reflects a
coordinated strategy to make progress towards all these
goals.

---o0o--

AIR POLLUTION SPECIALIST PANSON: Our multiple
long-term plans conclude that many of the same actions are
needed to meet greenhouse gas, smog forming, and toxic
pollutant emission reduction goals, specifically a
transition to zero emission and near zero emission
technologies across all vehicle and equipment categories.

To support this transition, the administration's
first two cap-and-trade auction proceeds investment plans
identify zero emission passenger transportation and low
carbon freight transport as investment priorities. Starting with this policy direction, we relied on assessments of emission contributions, technology readiness, market demand, past investments, and external input to develop the investment proposal before you today.

---o0o---

AIR POLLUTION SPECIALIST PANSON: I'll first provide some background before delving into the details of our proposal. As I noted in the opening, the plan builds on investments back to 2009. AQIP provides foundation for the low carbon transportation investments that now make up the vast majority of our funding. AQIP focuses on reducing criteria pollutant and diesel particulate emissions, often with concurrent greenhouse gas reductions. Cap-and-trade auction proceeds greatly expand the scale of our advanced technology incentives, also adding the requirement to reduce greenhouse gas emissions and provide disadvantaged community benefits.

Two key bills signed in 2014, Senate Bills 1275 and 1204 provide direction on how we implement these incentives. Fundamental to these programs is an annual funding plan, which details the priorities and projects for each fiscal year. By developing a joint plan for both AQIP and auction proceeds, we ensure synergistic investments between the two. To date, we've invested
about $600 million and will highlight some of the results over the next few slides.

--o0o--

AIR POLLUTION SPECIALIST PANSON: These investments are making a real difference in the California fleet. We've provided rebates for 150,000 zero emission and plug-in hybrid passenger cars, vouchers for over 2,500 hybrid and zero emission trucks and loans for 10,000 cleaner trucks. As recently as a few years ago, a ZEV driving down the street was a rare site, and now it's becoming a much more common occurrence.

You've heard a lot about CVRP, the hybrid truck vouchers, and the truck loan program over the years, so today we'd like to focus on some of the newer projects we've recently funded.

--o0o--

AIR POLLUTION SPECIALIST PANSON: Since the 2014-15 plan, we funded a suite of equity projects designed to increase access to clean transportation for lower income households and disadvantaged communities. We helped launch district run scrap-and-replace programs for lower income vehicle owners in the San Joaquin Valley and South Coast. Both programs have seen strong early demand helping over 600 people get into cleaner cars to date. Expanding these programs to other air districts is a
priority for us.

We're also providing funding to help the City of Los Angeles and the Sacramento Air District launch new car share programs serving disadvantaged communities in both regions. These programs are currently under development and will launch to the public later this year.

We've also helped launch a small pilot in the Bay Area to provide loan assistance and vehicle price buydowns for lower income consumers interested in buying advanced technology cars.

Each of these pilot projects is designed to provide data we'll use to evaluate its success, as well as determine the need for refinements and future funding.

--o0o--

AIR POLLUTION SPECIALIST PANSON: On the heavy-duty side, we funded -- we've awarded funds to several exciting projects to demonstrate and pilot zero emission technologies in and near disadvantaged communities. These include a project to demonstrate 43 zero emission and plug-in hybrid drayage trucks serving ports and freight facilities in the five largest air districts and driving through the disadvantaged communities around these sites.

We're also helping demonstrate zero-emission yard trucks, service trucks, and cargo handling equipment at a
Port of Los Angeles terminal, two rail yards in the Cities of San Bernardino and Commerce, and a freight transfer yard in Fontana. All of these facilities are located in disadvantaged communities.

We held a $25 million competitive solicitation for zero-emission truck and bus pilot deployments and the response was overwhelming. We received 38 applications requesting nearly $300 million showing strong demand for these types of projects.

We could only fund the three highest scoring projects, two in the San Joaquin Valley and one in the South Coast. These will put electric and fuel-cell buses in service in disadvantaged communities.

We're proposing an additional 60 million in this year's plan to fund the next highest scoring projects from this solicitation. All of the heavy-duty projects include an independent data collection and analysis component that will verify emission reductions, vehicle performance, and commercial viability. We'll use the data to evaluate these projects' success and design future investments to help these technologies progress towards larger scale commercialization.

--o0o--

AIR POLLUTION SPECIALIST PANSON: With that, let's move on to this year's proposal.
The Governor has proposed $500 million for low carbon transportation and fuels investments funded with auction proceeds. The proposal would continue the commitment to invest at least half the funds to benefit disadvantaged communities, and at least 10 percent of the funds to be invested directly in these disadvantaged communities.

This year's proposal includes $40 million for very low carbon fuel production, a new addition to ARB's incentive portfolio. As Chair Nichols mentioned in the introduction, the legislature has deferred action on the Governor's cap-and-trade expenditure proposal, so this part of the plan is contingent on funding approval.

The State budget approved by the legislature does include the nearly $29 million for AQIP.

---o0o---

AIR POLLUTION SPECIALIST PANSON: This next slide highlights our key priorities for this year's funding plan. As with past cycles, we're proposing funding allocations to match our best estimates of demand for our consumer driven first-come first-served projects. These include CVRP, the scrap and place incentives, HVIP, and now low NOx engine incentives.

We're prioritizing carrying forward the unfunded project categories from our last funding plan refining
them based on what we've learned over the past year and increasing some allocations to meet projected demand. As part of this, we'll significantly increase funding for our light-duty equity projects. In many ways, we're bringing back the plan that the Board endorsed last year, but that we were unable to implement because of the limited budget appropriation.

In addition to these proposed investments, developing the long-term plan for light-duty vehicle incentives was another priority. We developed today's proposal through an extensive public process that included three workshops, and 15 more focused work group meetings. We appreciate the willingness of our stakeholders to devote so much time to work with us to help shape our proposal.

--o0o--

AIR POLLUTION SPECIALIST PANSON: Before summarizing our funding allocations, I'll briefly highlight the long-term plan for CVRP and related incentives, because it helped inform our light-duty proposal. As I noted in the introduction, the plan is required by Senate Bill 1275. It also responds to requests from the Board from a multi-year vision for these incentives and a path to ensure that incentives are phased out appropriately as the market matures.
Per SB 1275, the plan must include a three-year forecast of funding needs, a market and technology assessment, and an assessment of when a self-sustaining market is expected.

--o0o--

AIR POLLUTION SPECIALIST PANSON: We estimate a potential funding need for CVRP and the associated equity projects growing to as much as 300 to 400 million by the third year of our forecast assuming no changes to the current CVRP structure. However, we acknowledge a high degree of uncertainty with projections beyond one year.

Our market and technology assessment show positive signs regarding the state of the ZEV market with growth in vehicle diversity, number of manufacturers selling vehicles, and consumer demand. CVRP-eligible vehicles now account now for about three percent of annual passenger car sales in California.

We also found vehicle technology costs declining quicker than originally expected in most cases. A much more comprehensive technology assessment is being jointly conducted by ARB, U.S. EPA, and the National Highway Traffic Safety Administration in support of California and federal motor vehicle regulations. It's slated for release at the end of the month.

We'll share the findings from this joint agency
technical assessment report with the Board later this year as part of our update on the mid-term review of the ZEV and Advanced Clean Cars regulations.

--o0o--

AIR POLLUTION SPECIALIST PANSON: As part of the long-term plan, we evaluated potential sustainability indicators, and proposed using ZEV market penetration as a measure of sustainability based on a well-established theory of technology adoption. We believe that once annual sales reach about 16 percent of the passenger car market, the market has penetrated the most difficult group of adopters for ensuring its success, and has reached sustainability.

Given that the market is at about three percent today, we believe it will take at least another five to ten years before this level of adoption is achieved. This provides a starting point for assessing when the ZEV market will be sustainable and we'll re-assess and adjust in future plans as the market grows and new data become available.

We include metrics that can be used to measure progress towards this target and identify mechanisms that could be used to ramp down incentives as the market matures. We also note possible alternative incentive structures that could be considered in future years.
We'll use this to start phasing down CVRP in future funding plans. However, we believe it's premature to begin a ramp down this year, because the market is still in its infancy.

--00o--

AIR POLLUTION SPECIALIST PANSON: I'll now move on to our project allocations first focusing on the pending $500 million for low carbon transportation and fuels. You can see the proposed allocations for light-duty vehicles, heavy-duty vehicles and fuels on this slide. The allocations come along with project criteria that would ensure that we exceed the minimum disadvantaged community investment targets I mentioned earlier.

Throughout the funding plan development process, stakeholders pointed out the need for incentive funding beyond that proposed here. And that's reflected in many of the comment letters we received. A case could easily be made for additional funding for each of these categories. Our proposal attempts to balance the available funding with the funding needs across all categories.

--00o--

AIR POLLUTION SPECIALIST PANSON: First, a closer look at our light-duty vehicle proposal. We used the funding need forecast developed as part of the long-term
plan to come up with the project allocations shown on this slide. We believe these would meet expected demand through next summer.

CVRP ran out of funding earlier this month is currently accepting applications on a waiting list. To address this, we've split the CVRP allocation into two parts. We direct 55 million into the existing grant to fund the waiting list and all new applications that come in, while we hold a solicitation to select an administrator for the upcoming cycle. This could take three months or even longer, given that it looks like we won't have a program budget in place on July 1st. So the two-part allocation would allow us to expedite rebate payment as soon as funds become available.

--o0o--

AIR POLLUTION SPECIALIST PANSON: Given that we just implemented the CVRP income cap and higher rebates for lower income consumers at the end of March, we're not proposing any changes to per vehicle rebate levels this year. We are proposing several important refinements though. As you've heard in past years, there's considerable interest in incorporating a prequalification or point-of-sale mechanism into CVRP. We're proposing to include pre-qualification this year. We still need to work through the precise implementation details, so we
envision it would take up to six months after we have a
new grantee in place to launch this new change.

We also propose increased outreach in public
education with a disadvantaged community focus to raise
consumer awareness.

And finally, we're incorporating provisions that
would prioritize payment of lower income consumer rebates,
if funding runs short. Although, we believe the proposed
allocation would cover the full funding cycle.

--o0o--

AIR POLLUTION SPECIALIST PANSON: For the equity
projects, we propose increasing funding from 10 million
last year to $50 million this year. This includes
expanding the four projects funded in previous years, car
scrap and replace, car sharing and mobility options,
financing assistance, and increased public fleet
incentives.

We would add a new project to support cleaner
agricultural worker vanpool fleets in the San Joaquin
Valley, which we had hoped to add last year, but couldn't
with the limited budget. These projects provide lower
income consumers access to clean transportation that they
might not be able to otherwise afford.

These investments also support the growth of a
used ZEV market by providing funding to support used ZEV
purchases. Highlighting a few of the proposed changes, we would expand our financing assistance for lower income consumers statewide, rather than limiting it to benefiting disadvantaged communities. This would allow it to reach additional consumers.

We would also expand scrap and replace to additional air districts. This is another element that we had to defer from last year.

I should mention that in addition to these expanded investments we're also undertaking a study on overcoming the barriers to zero emission and near zero emission transportation for low income Californians. We'll be updating the Board next month on that study, and it will help us design these projects and our broader investment strategy moving forward.

--o0o--

AIR POLLUTION SPECIALIST PANSON: Now, on to our heavy-duty proposal.

Advanced technologies in the heavy-duty sector are not as mature as in the light-duty section. Continued investment in zero emission and near zero emission demonstrations and early commercial deployments is necessary to foster heavy-duty technology development and transfer the light-duty vehicle progress to this more challenging sector.
We're allocating $175 million in low carbon transportation funding for clean truck, bus, and off-road equipment projects that build on the success of our previous investments. This includes over $140 million carried forward from the -- from last year, as well as increased funding to meet projected demand for HVIP and low NOx engines.

As I noted earlier, this is very much the plan we had hoped to implement last year. We include nearly $60 million to fund advanced technology demonstrations for heavy-duty trucks, other freight and port equipment, and other off-road equipment. These support the technology advancement goals called for in the Sustainable Freight Action Plan.

We also proposed launching the two new projects we'd included in last year's plan, zero emission freight equipment deployment, and the rural school bus pilot which, as you may recall, had tremendous support at last year's Board meeting.

--o0o--

AIR POLLUTION SPECIALIST PANSON: We've proposed a significant increase in funding for the low NOx engines accompanied with the use of renewable fuel because an 8.9 liter natural gas engine certified to the cleanest optional low NOx standard is now available. This will be
implemented as a new part of HVIP.

We've designed a per engine incentive that's appropriate for the incremental cost of this engine, and an overall allocation we believe would meet anticipated demand. As other engines come to market, we'll propose appropriative incentive amounts and eligibility requirements for each new engine.

We're also continuing to work with stakeholders to ensure that we implement the renewable fuel use requirement in a manner that works for fleets and fuel providers. We also propose $60 million to fund the next highest scoring project from the greatly oversubscribed zero emission truck and bus pilot solicitation.

I noted earlier that we expect to exceed the disadvantaged community investment targets established in the plan. And these two pilots are part of the reason we're confident of that. In the funding plan, we had anticipated that at least 75 percent of these zero emission truck and bus pilot funds would benefit disadvantaged communities.

Now, that we've scored all the applications, we're pleased to report that 95 percent of these funds would go to buses and trucks operating in these communities. This would put us well ahead of both our goals for investments in and benefiting disadvantaged
AIR POLLUTION SPECIALIST PANSON: Now, let's move on to the new program element. We propose incentives to encourage in-state production of very low carbon transportation fuels. We're designing these incentives to complement related programs administered by the California Energy Commission, California Department of Food and Agriculture, and CalRecycle, which fund biofuel production facilities and waste diversion projects.

Under our proposed approach, in-state producers of very low carbon transportation fuels would be eligible for per gallon -- a per gallon subsidy if the carbon intensity of their fuel is at least 60 percent lower than the comparable petroleum-based fuel. This is consistent with the definition of very low carbon fuel in statute. Renewable natural gas, biodiesel, and renewable diesel are a few examples of eligible fuels.

Fuels with lower carbon intensities, meaning they provide greater GHG benefits would receive higher incentives. And an extra incentive would be available for the use in-state feedstock.

We're interested in incorporating a disadvantaged community component to this incentive and we're continuing to work with community groups and fuel producers to figure
out how that would work.

--o0o--

AIR POLLUTION SPECIALIST PANSON: In addition to
the pending low carbon transportation and fuels funding,
there is about $29 million for AQIP in the approved State
budget. We recommend directing AQIP funds to projects
that primarily provide criteria pollutant and toxics
benefits, and thus are not the best fit for auction
proceeds funding.

As the table on this slide shows, most of the
funding would be directed to the Truck Loan Assistance
Program to meet expected demand from truck owners over the
next year. This is a key program to help small fleets
upgrade their trucks to meet the requirements of the truck
and bus regulation. Demand has steadily increased in
recent years, and these funds truly go to those most in
need of assistance with about 60 percent of the loans
issued to truckers owning a single truck.

We also recommend funding to scale up the
agricultural equipment trade-up pilot for the San Joaquin
Valley that's launching this year. This project is
designed to help smaller farming operations that are not
well served by existing incentive programs, which provide
funding for new equipment purchases. And we're also
setting aside a small fraction of the AQIP funds as a
reserve for revenue uncertainty as we've done in recent years.

--o0o--

AIR POLLUTION SPECIALIST PANSON: On final issue is that the legislature deferred action on the administration's cap-and-trade expenditure plan. Thus, the cap and -- the low carbon transportation and fuels funding was not part of the State budget passed last week. That part of today's proposal remains contingent on legislative action. We may experience some implementation delays, depending on when this funding is approved. We're already in a waiting-list mode with CVRP. And we expect HVIP will need to start a waiting list within a month or so.

We'll carefully monitor the ongoing budget deliberations, and we would return to the Board for further direction, if necessary, once the auction proceeds budget is signed, as we did last year.

--o0o--

AIR POLLUTION SPECIALIST PANSON: In closing, this year's plan builds on previous investments to reduce greenhouse gas, criteria pollutant, and toxics emissions by advancing the cleanest available technologies. These projects will continue to focus on achieving emission reductions in the disadvantaged communities that need them
the most. We recommend that the Board approve the proposed plan.

This concludes my presentation. And at this time, I'd like to invite Andre Freeman, from the California Energy Commission, to say a few words.

MR. FREEMAN: Good morning, everyone. My name is Andre Freeman from the California Energy Commission's Alternative and Renewable Fuel and Vehicle Technology Program. I just wanted to take a minute to express the Energy Commission's support of this well-crafted investment plan. I'd also like to personally commend the staff and all the hard ward that they've put into this. I know the document is not an easy document to prepare each year. And looking at the size of it, our -- I'm glad that ours is about half the size.

(Laughter.)

MR. FREEMAN: This is an especially difficult challenge for all the State agencies that have similar funding programs, especially in a time of constantly changing budgets. As Mr. Corey mentioned, ARB staff has spent a lot of time working with the other agencies to make sure that our relatively limited funding pots are all coordinated, so that we can get the best use out of all of our funding.

Staff has spent -- ARB staff has spent time with
Energy Commission staff to specifically define important areas of interest, develop specific solicitation details where our complementary solicitations will leverage each other's findings, as well as sharing stories of success, so that in future solicitations, we can pull the best projects out of them.

As a member of the California sustainable fraction action team between the Air Resources Board, Caltrans, the Energy Commission, GO-Biz, and our parent agencies, I definitely would like to mention that this plan is a good representative example of the type of funding opportunities that were defined through that project.

In the action plan, the specific projects were identified, as well as general funding areas that will continue to support the development of the freight sector throughout California. This plan, and especially the medium and heavy duty portions of this plan are focused on the solutions that, through working with outside stakeholders we have seen to, that will provide both near term and longer term air pollution reductions throughout the State.

The funding allocated to the further development and deployment employment of the medium- and heavy-duty vehicles and cargo handling equipment are going to provide
a specific benefit to those hardest hit communities throughout California, especially those surrounding the major freight corridors. This is a very important point that we continue to emphasize throughout all of our funding programs. Not to diminish the ongoing successes and challenges in the light-duty vehicle sector, but as Andy just mentioned, the medium- and heavy-duty sector proposes a very important challenge that I think the State agencies are definitely rising to meet.

With that, I'd like to thank the Air Board for the consideration of this item, and I look forward to the ongoing coordination and collaborative activities that we have between our agencies.

Thank you.

CHAIR NICHOLS: Thank you very much. Thanks for being here, and for all the collaboration that we've seen recently in the last few years. I think we've been able to strategically target the investments from both of our agencies and achieve more than the sum of the parts. So it's great.

Okay. I think now we will hear from the witnesses who've signed up to speak to us then. I have the first sheet which has 20 names on it. And I guess they're up there on the Board. So behind me, they're projected so you can see where you are in line. And our
first person who signed up was Senator McGuire. I understand he might not be able to be here. And so Kelly Burns is speaking on his behalf.

Hi.

MR. BURNS: Hi. Thank you.

Senator McGuire would just like to thank everyone for the proposal to invest in rural California and provide the rural school bus districts the tools they need to improve their air quality. Last year, you might have remembered that you received a letter of 18 -- from 18 different legislators showing strong support for the allocation of the school buses.

You know, this is just very important, because rural areas are disproportionately impacted because they have longer commutes and limited transportation alternatives, and also less discretionary funding. So staff proposal is a modest, but necessary, investment that will have a significant impact on the State's air quality and the health of thousands of California students, so thank you very much.

CHAIR NICHOLS: Thank you. I wish I could give extra funding for people who take less than their full three minutes --

(Laughter.)

CHAIR NICHOLS: -- but unfortunately --
(Laughter.)

BOARD MEMBER RIORDAN: And supporters.

CHAIR NICHOLS: Add supporters too, that could get you extra points.

Thanks very much.

(Laughter.)

CHAIR NICHOLS: Fred Minassian. You can just come on up. You don't have to wait to be called.

MR. MINASSIAN: Chair Nichols, members of the Board, good morning. I'm Fred Minassian, Assistant Deputy Executive Officer at the South Coast AQMD. On behalf of our agency, I would like to express our support for the proposed plan for low carbon transportation and the air quality investment program.

The proposed plan is crucial for the demonstration of advanced zero emission technologies and their commercial deployment in the on- and off-road categories. The South Coast AQMD strongly supports the deployment of zero emission port technologies, such as yard hustlers, gantry cranes, forklifts, and related infrastructure.

Air districts and CARB have a long and successful history of implementing State's incentive funding programs. We propose to continue this relationship for the commercial deployment phase of this program. We
believe local implementation of the program will have several benefits. It will enhance distribution and tracking of the funds in environmental justice areas.

Furthermore, through our robust and pre- and post-inspection program, we will be able to combine the deployment of the new technologies with the requirement of replacing the older equipment.

This, rather than just funding new technologies, will increase the overall emission reductions of the program. In addition, leveraging the public's one big goods movement program with low-carbon transportation funds is already allowed per CARB's program guidelines. We propose increased coordination between CARB and air districts for a single point and easier access to these funds by the applicants.

Lastly, there is a need to identify additional funding sources if the South Coast AQMD is to attain federal air quality standards.

We stand ready to work closely with your staff in seeking additional funding opportunities. Again, the South Coast AQMD supports the proposed plan. I thank you for the opportunity to speak.

CHAIR NICHOLS: Thank you. I'm going to ask staff to respond to the suggestions, but I'd like to wait until we've heard from all the other witnesses.
Thank you. Okay.

MR. FOURNIER: Good morning, Madam Chair, members of the Board. My name is Anthony Fournier, and I'm here on behalf of the Bay Area Air Quality Management District this morning to speak in favor of the proposed 2016-17 funding plan for AQIP and low carbon transportation investments.

I'd like to first thank Mr. Corey and his staff for putting together such a comprehensive and well-crafted plan. The plan supports zero and near zero emission technologies and will reduce a significant amount of greenhouse gas emissions and continues where the 2015-2016 plan had left off.

Also, as you can see by the number of written comments that have been received, staff has done an excellent job with the public workshop process, and has been able to engage a broad range of stakeholders throughout the process.

Now, I want to reference the CAPCOA comment letter that was submitted as part of the public comment period, and just note that our district supports all of the remarks that were made in that letter. Additionally, we support the expansion of the EFMP Plus-Up program beyond the initial pilot areas. This will allow more disadvantaged communities access to the incentive funds.
and further our district's efforts to deploy zero emission vehicles in the Bay Area.

We support the staff's proposal to award 2016-17 low carbon transportation funds to advanced technology pilot demonstration projects that were submitted, but unfunded, under the prior truck and bus solicitations that were oversubscribed.

We support the continued funding for advanced technology pilot demonstration projects, the focus on trucks, buses, off-road equipment, and specifically freight applications. And we see the need to make sure that these types of projects remain a funding priority into the future, in order to transition from the demonstrations-style projects into more of the commercialization and deployment, where we can see more of the real benefits.

Finally, we support the proposed contingency provisions that will allow the Executive Officer to redirect funds from programs with low interest as needed.

We look forward to continuing our partnership with your staff in support of this plan, and the effective allocation of future State funds.

Thank you for your time.

CHAIR NICHOLS: Thank you.

MR. MAHER: Good morning, everyone. My name is
Mike Maher and I am with Cummins Pacific. I want to thank you for the opportunity to provide these comments and also those that we've already submitted.

I'm here to speak to the low NOx engine incentive program. We appreciate the willingness of the ARB staff to better understand the Cummins Westport ISLG near zero engine, and its unique market factors related to its roll-out.

We support the decision of the ARB to increase the incentive to $18,000 per unit. This will not cover the entire incremental cost associated with the purchase of that engine. However, when combined with other incentive programs, it will encourage heavy-duty owners to purchase near zero engines, and repower with near zero technology. Without additional incentives, it may not have the desired effect on fleet conversion as we'd like. We'd also support the renewable fuel requirement, when combined with near zero natural gas engines. Renewable natural gas will help California reduce CNG and criteria pollutant emissions. This is the most economical solution to achieve these goals.

It should be noted that some heavy-duty operators may view the renewable fuels requirement as a barrier to taking advantage of the program. Therefore, it is important that the total incentive package is adequately
funded to cover most of the incremental costs between an existing natural gas engine and a near zero engine. We want to thank you for the opportunity to make these comments, remain committed to the ARB, the staff to make this program as successful as possible to help California achieve its emission goals.

Thank you very much.

CHAIR NICHOLS: Thank you. I believe there are other witnesses who are going to make similar comments or at least have support for that perspective that was just articulated. And I think it might be a good idea to have the staff comment now on why, assuming you don't agree with that recommendation, or why you made the recommendation you did in terms of limiting the amount of funding for these types of vehicles, and you can explain your thinking anyhow.

MOBILE SOURCE CONTROL DIVISION CHIEF KITOWSKI:

Sure. Let me start by acknowledging the work we've done with Cummins Pacific and others in this area, and that we are strongly supportive of the low NOx engine with renewable fuels. We have already integrated it into our AQIP program. We've integrated into Prop 1B. This proposal would integrate it here into the Low Carbon Transportation Program, and we're working to integrate it into the Carl Moyer Program when it comes back. So we are
looking at it comprehensively.

You could look at this a number of ways. And I will focus on the -- and note that Mr. Maher was supportive of the 18,000 for the purpose it was doing. And so I think that's the point that I'll focus on in my comments, because the objective we were trying to achieve was basically there are a lot of -- this is the Cummins 8.9 liter -- there are a lot of those engines sold every year, about 2,000 sold in California every year.

They primarily go in transit and refuse applications. And our objective was to provide a source of funding that was easy to access, ease to implement, it was straightforward for folks. It's a voucher program in a proven system, where folks who were going to buy the 8.9 liter conventional engine, now could buy the 8.9 liter low NOx engine with renewable fuels and not be out any additional funding. So it's only covering that increment.

It's not trying to do more and expand the market, and people to get the conversion from diesel to natural gas, which is a worthwhile endeavor itself, but, you know, is a broader -- is a broader goal. So the amount of funding we have quite significant, $23 million in this pot, will be able to convert -- I think it's about, if I did my math right -- it's about 1,300 engines. And so 2,000 sold every year. If we're pretty successful, we
will be able to fund the majority of those. If we're wildly successful and everybody comes in, we will run out of money. And if we had provided more funding than the incremental cost or tried to expand the market and do more with this, we just wouldn't have enough money.

So that's why we relied on that point, but we -- for the objective we were trying to do, we are trying to cover the full incremental cost.

CHAIR NICHOLS: But are there other programs, either ours or other people's, that would deal with the other issue that was raised here by Mr. Maher?

MOBILE SOURCE CONTROL DIVISION CHIEF KITOWSKI:
Yeah, certainly. The California Energy Commission, as I said, the Prop 1B program, and the Carl Moyer Program, we'll look at that, local air districts have funding. So there are other programs. You know, certainly we always can use more in a lot of these programs. But there are other programs available out there and people are very comfortable for many years now in that transition to natural gas.

CHAIR NICHOLS: Do you think -- this maybe goes back to an earlier comment. But again, since we have a lot of people here who are obviously very well versed in these programs, that an ordinary owner of a kind of vehicle that would be suitable for this would understand
that there -- that these other sources exist. In other
words, are we doing everything we could do to try to
coordinate the information and make it readily accessible
to people, so they don't have to go from one place to
another, and, you know, do a whole lot of research every
time if they're trying to find funding to clean up their
fleet?

MOBILE SOURCE CONTROL DIVISION CHIEF KITOWSKI:
Yeah, that's a really good point, a really good
question. It's certainly a lot easier when you're dealing
with transit agencies and refuse haulers who are very
comfortable with this. We coordinate with dealers a lot
and the dealers are comfortable enough with the funding
that's available, and the options, and how to work through
the system.

The voucher program that I'm talking about here
is actually completely run through the dealer, so that it
comes off the purchase price, and the applicant never has
to touch the cash. But as you're -- as we're looking and
we want to expand this program to more and more people, it
means getting to harder and harder groups, outreach
becomes more important, those efforts become more and more
important, and those are efforts that we are continuing.
But at this point, we have -- we believe we have more than
enough demand to be able to cover the costs we're -- you
CHAIR NICHOLS: Okay. Let's return to the witnesses then.

Mr. Tree.

MR. TREE: Good morning, Chair Nichols, members of the Board. Richard Tree, City of Porterville. And on behalf of the City of Porterville, we voice our support for the proposed funding plan. And more importantly, we support staff's proposed low carbon transportation allocation of 42 million for the zero emission bus pilot commercial deployment project.

As staff noted, the San Joaquin Valley has two projects that have been preliminarily selected for funding, and we're very proud of that. A total of 21 million in funding is coming -- is expected to come to the valley through this grant solicitation, ensuring that a portion of cap-and-trade funds are directed to the valley, particularly given that the valley is home to 23 out of the top 30 disadvantaged communities in the State.

As staff notes, the proposed allocation would fund an estimated 43 buses, and provide an estimated 39,000 metric tons of CO2 equivalent GHG emission reductions.

Should there be a revised plan in the future, we ask that the ARB to continue to fully fund the zero
emission bus pilot commercial deployment project. We support the proposed funding plan, which will produce projects that maximize reductions in GHG emissions, and to ensure that California, and more importantly, the valley meets its climate goals.

Thank you.

CHAIR NICHOLS: Thank you.

MR. COX: Good morning. Monty Cox, Transit Manager City of Visalia.

And I'm grateful for this opportunity to come and speak with you. We are apart of the project that was -- the other project that was awarded for the -- in the San Joaquin Valley. We have been grateful for the partnership that was formed to create that project, and the partnership that we have had over the years with the Board and with our air district to accomplish these projects.

We just completed 100 percent of converting our buses -- our bus fleet in Visalia to 100 percent natural gas. And we are excited to go to this next step now to start converting our fleet to zero emission buses. And this project will help start that, and get us a long way down the road, but we want to make sure that these opportunities are going to continue.

So we're here to support the plan to continue funding these programs, and to provide additional funds in
the future, so that we can continue to take advantage of that. Without these partnerships, the City of Visalia and several of our bus operators in the Central Valley would not be able to do so. We're -- these are critical to us. So thank you. And again, we want to support your plan to continue these efforts.

CHAIR NICHOLS: Okay. Thanks.

MS. REES: Good morning, Madam Chair and members of the Board. I'm Kathryn Rees. I represent Southwest Airlines. We're here to encourage you and to support the inclusion of aviation fuel production within your low carbon incentive fund. Producers can, as you know, make both renewable diesel as well as renewable aviation. If a producer is incentivized to do one and not the other, the incentive is there to do one and not the other.

So as a result, Southwest certainly would encourage the inclusion of the aviation fuel. We want to be able to have producers producing.

So thank you very much. And I stayed under three minutes, Madam Chair.

(Laughter.)

CHAIR NICHOLS: Yes, you did. Extra credit.

MR. TAYLOR: Good morning. Tim Taylor on behalf of the Airlines For America, representing major U.S. airlines.
A4A is testifying to request that the Board include sustainable alternative jet fuel, also known as biojet fuel as an eligible fuel under the proposed very low carbon fuel incentive program. A4A's members are part of a global aviation coalition that has adopted aggressive GHG reduction goals going forward, including achieving carbon neutral growth from 2020.

One key strategy to achieving these goals is the use of biojet. In California, United Airlines has executed an agreement with AltAir Fuels for the purchase of up to 15 million gallons of biojet over three years, and, in fact, began using biojet at a LAX in March of this year.

Unfortunately, the production of biojet is currently disincentivized in California because producers can currently only generate credits under the Low Carbon Fuel Standard for ground transportation fuels. The proposed very low carbon fuel incentive program provides an important opportunity to help eliminate the current market disincentive to produce or purchase biojet in California by creating a structure that equalizes available incentives for different types of fuels.

An incentive at parity with incentives obtained for other fuels under the LCFS would eliminate unnecessary market distortions and facilitate airline support for the
industry. Airlines stand ready to support the California alternative fuels industry, and are uniquely situated to help obtain financing for the expansion of the industry through dedicated off-take agreements.

Allowing biojet to qualify under the very low carbon fuel incentive program would help California and the airline industry to achieve our mutual climate goals.

Thank you very much. Appreciate it.

CHAIR NICHOLS: Thanks.

MS. LEVIN: Good morning, Chair Nichols and members of the Board. Julia Levin with the Bioenergy Association of California. I want to start by thanking staff. We have met with staff many times in the past year, and they've been very receptive and very thoughtful in proposing some of the changes to the plan. We are particularly supportive of the new inclusion of the funding for biofuels, which right now provide the largest share of low carbon fuels in California helping to meet the Low Carbon Fuel Standard, and actually provide the lowest carbon transportation of any kind. We strongly support that new addition. We also support the addition of funding for low NOx trucks. But we have two big recommendations.

I'd like to echo the comments and the recommendation from the gentleman from Cummins Westport.
We think it's very important to increase the per truck incentive for the new ultra low NOx truck engines that are available. This is really a break-through technology, and it is going to take a larger per-truck incentive to get these trucks on the road quickly.

That leads me directly to our second, and much bigger recommendation, which is across the board we urge that Air Board to put more emphasis on the reduction of short-lived climate pollutants. I don't know if that terms is ever even mentioned in the $500 million low carbon transportation fund proposal. And it's ironic, because in this Board's own proposal on short-lived climate pollutants, it says repeatedly that it's really critical to take immediate short-term actions to reduce short-lived climate pollutants to prioritize public funding for the reduction of short-lived climate pollutants, and that doing so not only is the most important and urgent thing we can do to change the trajectory of climate change, but also to provide immediate benefits, including really significant benefits in disadvantaged communities, where we can reduce the pollution from diesel-powered heavy-duty trucks.

The two biggest sources of short-lived climate pollutants, as you know, are black carbon from wild fire, and methane emissions from dairies. Both of these can be
reduced immediately by instead converting that organic waste into low carbon transportation fuels.

And the last thing I want to note is yesterday CalFire released the updated estimate of how many dead trees we have in the Sierras. And just since last fall, we've gone from 29 million dead trees to more than 66 million, and that's just in six counties. We know it's more than that, if you look statewide.

Instead of shipping those trees to China to be used for cement manufacturing, which is actually one of the proposals on the table right now, we could be creating jobs, and creating low carbon transportation fuels, reducing air pollution and black carbon emissions from wild fire, as well as methane from dairies and from urban organic waste.

So we think it is highly appropriate to put more of the money for ultra low NOx trucks that can run on biofuels made from organic waste.

Thank you.

CHAIR NICHOLS: Thank you.

MS. LEE: Hello. My name is Yoshimi Lee with Mitsubishi Motors. Thank you, Chairman Nichols and the Board for the opportunity to provide comments.

Mitsubishi Motors supports the proposed funding plan, and we appreciate staff's hard work on putting this
proposal together. We believe CVRP is a key incentive to support zero emission technology and increase ZEV market demand. We would like to highlight the following four issues: We support point-of-sale rebate to qualify -- pre-qualify buyer. We support staff's recommendation to increase the CVRP funding over the next three years. We agree with staff's conclusion that the ZEV market would not be sustainable for at least the next five to 10 years. We believe it is still too early to discuss decreasing the CVRP incentive amounts or limiting their availability.

Mitsubishi Motors appreciate your consideration of our comment, and we look forward to working with you and the ARB staff to ensure continuous success of the CVRP program.

Thank you.

CHAIR NICHOLS: Thanks.

MS. SKIVER: Good morning, Madam Chair and members of the Board. My name is Lauren Skiver. I'm CEO and general manager for Sunline Transit Agency, which serves nine cities in the Coachella Valley and unincorporated Riverside County.

I first want to thank you and the ARB staff for the enormous amount of time you put in to reach out to transit agencies to better understand the complex environment we operate in and how zero emission technology
affects our fleets. The significance of this funding program is enormous. We all know that to achieve goals set by leadership, we must have a combination of incentives and regulation. Like all major shifts, uncertainty in funding is the most devastating variable in the continuing momentum we have worked so hard to create.

Transit leaders are concerned that lasting support will be available and that the risks they take in deploying ZEVs may recreate an unfunded mandate.

Sunline has been a longstanding advocate for alternative fuels and environmentally focused initiatives. We have proven that transit should and can be environmentally focused and do everything in its power to create these programs, but our success was due to opportunity and funding.

If we are going to require a commitment from transit to operate zero emission technology, we must have a commitment to funding, not only that that's already been awarded but to future streams that will be available for transit operators.

Sunline has given me the opportunity to see an agency that has taken an enormous investment and made a successful program out of it. It's not just the future that's at stake here, it's the millions of dollars that have been invested in the past to create zero emission
technology that really works.

Sunline stands with you committed to educate other transit properties, support ARB and other entities that are looking at clean air initiatives, and to continue programs that improve our environment. We have more transit agencies than ever right now that are committed and willing to operate zero emission technology. We can't afford to lose this momentum, and I thank you very much for your time.

CHAIR NICHOLS: Thank you.

CAPCOA EXECUTIVE DIRECTOR ABBS: Good morning, Madam Chair and members of the Board. My name is Alan Abbs. I'm the Executive Director with the California Air Pollution Control Officers Association representing the 35 local air districts in California.

For starters, I'll echo what Anthony Fournier and Fred Minassian said and I'll keep it relatively short. CAPCOA submitted a comment letter on June 6th about the low carbon transportation plan. We have very -- we're very excited about the rural school bus pilot funding that would upgrade rural school bus fleets with electric and renewable fuel buses. And we think it's going to be a very successful program, and it will be oversubscribed as soon as we're ready to start.

We also support the expansion of the Enhanced
Fleet Mod Plus-Up Program. The South Coast Air District and San Joaquin have shown that these programs can be very successful. And I think we're ready to expand that to other parts of California that have similar needs in reducing older higher emitting vehicles with new advanced technology vehicles.

And lastly, I'd just like to remind the Board of the past partnerships between ARB and the local air districts. When you look at the programs like Prop 1B, Carl Moyer, and all the other incentive funding programs that we've jointly administered, we've been able to get over $2 billion in incentive funding out throughout the State of California. And we've done it in a way that's transparent and has provided quantifiable emission reductions.

And so as we move forward, just as a reminder, we have experience developing and managing incentive programs, extensive local community and local industry knowledge, and experiencing coordinating complex projects. And we highly recommend continuing this partnership moving forward as this plan moves forward.

Thank you.

CHAIR NICHOLS: Thank you.

MR. DOUGLAS: Good morning, Madam Chair, members of the Board. I'm Steve Douglas with the Alliance
Automobile Manufacturers.

And you should have a joint letter from the Alliance and Global Automakers. We represent together about 99 percent of the new vehicles sold in California, and we support the funding plan.

I'd also like to thank the staff. They've done a terrific job coordinating. It's a very large group of stakeholders, very passionate, and I think they've done -- they've done a great job listening to and working with the stakeholders to reach what at least we believe is a package the balances the input of the stakeholders, the requirements of the law, and the direction of the Board.

Just a few things to point out. Manufacturers now offer 29 different ZEV models, 29 different ZEVs, so -- and more coming every day. And we're also starting to see the second generation ZEVs with longer ranges, better performance, and that -- and these are compelling vehicles that are offered at extraordinarily reasonable lease rates and prices.

And, of course, for its part, California offers a range of incentives, both HOV lane and then financial incentives as well. But with all of this, ZEVs still make up only three percent of the new vehicle market in California. And surveys indicate that consumer awareness is still really low.
So we face a pretty enormous challenge of growing this market by 500 percent over the next nine years. And just for perspective, that would put it at three times the sales rate of current hybrid vehicles, just conventional hybrid vehicles, which have been on the market for 17 years.

CVRP, the HOV lane access, those are critical elements to growing this market to meeting our goals. We are committed to working with ARB and others to reduce the fiscal impact of this program. However, at this point, it's just far too early to begin discussions of ramping it down or limiting the scope of the program. So we agree with the staff, as far as self-sustaining. It's five to ten years out. And this is probably the most critical period of the ZEV market, and it determines the future for decades to come.

One more point, point of sale. We support the point of sale. It's really important for low and moderate income community or purchasers that they receive the rebate at the dealership, so they don't have to wait for weeks or now months to get the rebate. Again, in summary, we support the proposal. We recommend you adopt it. And we'll continue to work with ARB, the legislature, and the administration to fund the funding plan.

Thank you.
CHAIR NICHOLS: Thank you.

MR. WALLAUCH: Good morning. This is -- I'm
Steve Wallauch with Platinum Advisors here on behalf of
the Center for Transportation and the environment.

CTE has several projects I'll try and be brief.
Yeah, we're here to mainly highlight one of the projects
that they've kind of organized here was the fuel cell
electric bus commercial consortiums project and the
support they have for the expenditure plan that you have
before you.

This is a project that will advance the
commercialization of fuel cell buses. And CTE has
organized a consortium consisting of the largest transit
operators in the State with OCTA a AC Transit, as well as
the leading manufacturers in technology with riders for
buses, fuel cells, and fueling infrastructure, which
includes New Flyer, Linde, and Ballard.

The significance of this project is to reduce
unit cost by 50 percent for these fuel cell buses and set
the stage for making fuel cell electric buses affordable
through higher production volumes and a viable option to
meet the California zero emission vehicle goals.

This is technology that also could translate over
into the other heavy-duty sectors with freight and trucks
as this technology develops.
This is a no-risk project. We have, you know -- successful with the transit operators, with the manufacturers that are involved in this. We urge your support for the six manager plan and we extend our support and efforts in trying to get this funding available.

CHAIR NICHOLS: Thanks.

MR. PEEPLES: Chair Nichols and members of the Board, my name is Chris Peeples. I'm an elected at-large director of the Alameda Contra Costa Transit District. And I am currently serving as its board. And we support the staff's proposal here today. But I'm here to talk specifically about the consortium proposal.

As you know, we have been running fuel cell buses for about 10 years. We have a fleet of 13. Most of you have ridden on them. If you haven't, I will be happy to arrange a ride. But we, together with Sunline, who is the progenitor of all this stuff in California, have proven the reliability and the durability of fuel cell buses.

The fuel cell buses are running about as reliably as diesel buses. The senior fuel cell bus in our fleet was originally warranted for 4,000 hours. It now has 23,000 hours on it. So they work.

The issue has been the cost. Our current buses are $2.5 million each. That's a lot of money. The consortium grant together were another grant you've got
for Sunline is going to result in a build of 25, which is
going to allow New Flyer, the largest bus manufacturer in
North America, to deliver a buy-America bus at half the
cost of our current fleet.

If you go further than that and look at what
happened in Europe, they have done a tender for 100 bus
buy, and they've got five offers to supply those buses at
650,000 Euros. That's about $725,000.

I just got a message from Jamie Levin, who you
all know, who is up at Ballard in Canada, where he just
drove a $300,000 Chinese bus. That's from a build of 300.
So this grant is really critical to drive the price of
this proven technology down to within spitting distance of
CNG or hybrid diesel. So we hope you will do that, and
thank you very much.

CHAIR NICHOLS: Thank you. Thanks for all your
pioneering work on these buses too.

MS. TOPP: Thank you, Madam Chair and members.

Moira Topp speaking on behalf of the Orange County
Transportation Authority, also known as OCTA, in support
of the item before you. We, too, are part of the
consortium that was discussed by the last several
speakers.

OCTA has a long history of taking actions to
integrate new technologies within our transit fleet to
improve both the environment and increase the operating efficiencies. OCTA currently has a fleet of about 560 buses, almost completely fueled by natural gas. In addition, OCTA is taking steps to integrate new low NOx engines and use renewable natural gas.

Hydrogen fuel cell technologies offer means for transit agencies to maintain existing range and reliability expectations, while also potentially reducing long-term maintenance and operations costs. However, the upfront costs, as you've heard, to secure these vehicles and related fueling infrastructure is still quite high, about double what existing natural gas buses cost.

This essentially makes the technology cost prohibitive to most transit agencies impacted by continued reductions in State transit funding. Funding secured through the AQIP would allow OCTA to secure ten hydrogen fuel buses and begin fueling infrastructure -- and begin to build fueling infrastructure within the community.

This will allow OCTA to have a fueling station on site, allowing hydrogen fuel -- the hydrogen fuel cell bus fleet to grow, and no longer be reliant on outside fueling locations.

These types of demonstration projects are essentially important, as you, the Board, continue to discuss the advanced clean transit regulation, which, as
currently proposed, would require transit agencies to convert to 100 percent zero emission fleets by 2040.

These demonstrations outlined in the item before you today will provide key information about how these buses run in large and urban environments and about the long-term costs. And lastly, I'd note -- just a note about the importance of the appropriation. The item and the procurement we have does have a certain shelf-life, and it is critically important in order for us to -- we have an older fleet that we're trying to replace. And in order for us to move forward, we do need to have that appropriation quickly.

Thank you.

CHAIR NICHOLS: Thank you.

MR. WARREN: Good morning, Chair Nichols, Board members. I apologize for my voice. I feel much better than I sound.

(Laughter.)

CHAIR NICHOLS: Good.

(Laughter.)

MR. WARREN: My name is David Warren. I'm the director of sustainable transportation at New Flyer of America. We're the largest transit bus manufacturer in North America, in the U.S. We have operations in Fresno and in Ontario. We produce, on the order of, 50 transit
buses a week of all different propulsion types. Now, this includes clean diesel, it includes compressed natural gas, including the Cummins near zero NOx engine with renewable fuels that was mentioned. It includes diesel electric hybrids, trolley electrics, battery electric buses, and finally fuel cell buses.

Now, why are fuel cell buses so important? It is the only zero emissions technology out there that can have a range above 300 miles. It has the ability to essentially replace any internal combustion engine one for one in transit operation. New Flyer is currently building North America's first 60-foot fuel cell electric bus. And that bus will be deployed by AC Transit in 2017.

Now, it was mentioned earlier about the cost of fuel cell buses. Buses, as I just mentioned, that 60-foot fuel cell buses, those type of technology development programs have been up over $2 million to produce a bus of that. With the AQIP program producing 20 or more of these buses, New Flyer is able to offer these buses for $1.2 million.

Now, based on that program being funded, AC Transit has submitted another five buses to the Federal Transit Administration for buses that we've committed to produce for $1.1 million.

And in 2014, we sent a letter to the California
Air Resources Board that with quantities above 40, we
could get the price of a fuel cell bus at $900,000 or
below. Delay of the approval of this plan, and the
appropriation by the legislation, impacts our company.
We've reserved build slots based on a preliminary offer to
do this, and we are ready to proceed with the continuation
of this program. We are in full support of the program,
and I thank you for your time.

Thank you.

CHAIR NICHOLS: Thanks.

MR. NATESAN: Thank you, Chair, and the Board.

Nitin Natesan. I'm here representing Linde. We are the
world's -- one of the world's largest hydrogen technology
providers, service providers, and fuel providers. We are
also part of this consortium that the several last
speakers have been part of.

We have built in California built and service AC
Transit's two bus stations, which is one of the largest
bus fleets in the world. We also built and service the
largest hydrogen fueling facility in the world at BMW's
facility in South Carolina.

Linde has developed hydrogen fueling technology
to rapidly fuel buses back to back throughout the day to
meet the ever need -- changing needs of bus fleet
operators.
This project, and the programs like this, enable us to reduce capital costs to move us on the journey towards affordable infrastructure. Our technology is capable of scaling up well past 10, 20, 50 even 100 buses, and well over 1,000 kilograms a day.

This project helps us in our journey to also facilitate heavy-duty applications in freight and trucking. Additionally, what this project does is create a base demand right now while we are waiting for light-duty demand to rise and grow, and also create a need for further renewable hydrogen production. So Linde is in strong support of this project. Thank you for the opportunity to speak.

CHAIR NICHOLS: Thanks.

MR. GRANT: Hi. My name is Jeff Grant and I'm representing Ballard Power Systems. Ballard is the largest manufacturer of fuel cell engines in the world for transit buses, and is part of the AQIP project team with AC Transit and Orange County.

There have been more than 100 Ballard-powered fuel cell buses deployed around the world over the years. And I want to speak to you about why the AQIP program and this project is so important to Ballard from a technology provider's perspective.

First off, the economies of scale allow a steep
A reduction in the cost of the fuel cell module or fuel cell engine, if you will. The cost of the module intended for the AC Transit/Orange County project is about 30 percent of the cost of that same module or similar modular that's used in the current fleet of AC Transit buses. So we've had a 70 percent reduction in six, seven years. So that's very key, the economies of scale.

It also -- this cost reduction, it allows the technology to diffuse into other applications that I think are important for California, things like drayage trucks, rubber tired gantries and things like that. So that's key as well. The project also allows Ballard to invest in U.S. manufacturing capabilities. And that's important, because these modules have to meet Buy America requirements. And there's competition, quite frankly, for those investment dollars, because if we look at the rest of the world, in Europe, there are 62 fuel cell buses in operation, 21 currently being assembled, and another 142 planned for deployment between 2018 to 2019.

So there's a lot of activity. If I look at China, Ballard has supply agreements to deliver modules for 333 fuel cell buses in Rugao, in Foshan, and Yunfu. And Chris Peeples spoke a little bit about, you know, we've got one of the buses actually in operation at Ballard.
So there's a lot going on globally with the technology. California has always been a leader in the implementation of zero emission technology. Continuing this and appropriating money to this funding plan allows California to stay in that position. And there's the potential to generate significant jobs within the State related to manufacturing, operations, and service.

So I want to thank you for your time, and sum up my comments. We're fully in support of the funding plan. We brief it provides the necessary scale to make a step change in the commercialization of fuel cell electric buses.

Thanks.

CHAIR NICHOLS: Thanks.

MS. WARD-WALLER: Good morning, Chair and members. Jeanie Ward-Waller with the California Bicycle Coalition. I want to thank you all for the opportunity to comment today, and also -- I'll keep my comments fairly brief. I want to generally align my comments with other folks that will speak today from the SB 535 Coalition. And we also submitted a letter to you.

So I think in particular within that letter we support, you know, really putting a priority, or at least, you know, sort of equal priority on those projects that are providing real benefits to low income individuals
around the State in disadvantaged communities.

I also want to support and really thank staff for working with us on considering how bikes can fit within this program. The funding plan does contain eligibility -- suggested eligibility for bike sharing. And we really support that and have appreciated a lot working with your staff within -- that's within the mobility options pilot program.

I also want to appreciate that you're sitting here today without a funding allocation from the legislature, and just want to let you know that we are working across the street to encourage the legislature to get this funding out the door, so that we can start seeing it go to good projects.

We've also submitted a separate letter to you from a number of groups around the State, many by coalitions and other community partners, proposing some additional opportunities to fund bikes within this program that we hope you will consider. As a new pilot, we think that has great potential to get more folks, especially low income folks, around the State into zero emission transportation that also is healthy and provides a range of other benefits. So thank you.

CHAIR NICHOLS: Thanks.

MR. CARMICHAEL: Good morning, Chair Nichols,
members of the Board. Tim Carmichael with Southern California Gas Company here to support the plan. Very appreciative of the inclusion of the 23 million for low NOx near zero emission engines.

I want to propose two changes that we think would make the plan significantly better -- that piece of the plan significantly better. One, Chair Nichols alluded to earlier, is the level of incentive. Staff is proposing 18,000. They're very focused on the scenario where a transit agency or refuse operator is going to change out the engine at mid-life for that vehicle. In that scenario, the level of funding probably works. But for other scenarios, we're very skeptical that it's enough.

And we do look at all the programs, not just this one. We do consider the potential to combine. And frankly, given the number of trucks that we're trying to transform over the next decade, you want to combine where you have to, but you don't want to combine all the time. And we're worried about a scenario where this incentive level is just a little bit too low. And as a result, everybody that applies is looking for a combination scenario, and you're eating up all of the incentive funding, which is not really maximizing the benefits of -- maximizing the potential of the money.

We believe 25,000 is a better incentive level.
And yes, there's the potential for fewer trucks to be -- or vehicles to be incentivized, but that's only a problem if you believe this program will be fully subscribed -- this portion of the program will bully subscribed. We're skeptical of that. And as a result, we think it's better to put a little bit more per vehicle and ensure that it is fully subscribed.

The second issue we want to raise is the plan includes a component to provide a bonus incentive -- different wording is used in the plan -- for vehicles that are deployed to benefit disadvantaged communities, zero emission vehicles, trucks, in particular. And we think that is a good idea, but we also think that that approach should apply to near zero technologies.

If the goal is really to protect public health, protect community health, near zero, 90 percent lower, emissions than what's on the road today, the best of what's on the road today is a really good step forward. And for, you know, approximately 15 percent bonus incentive, to get fleets to make the choice to put these newest cleanest engines in the most impacted communities we think makes a lot of sense.

Thank very much.

CHAIR NICHOLS: Thanks. Saved by bid the bell.

Hi.
MR. IKERD: Thank you, Madam chair and members. Jason Ikerd here today on behalf of the San Francisco International Airport to express our support along with our airline partners for inclusion of renewable aviation fuels and the very low carbon fuel incentive program. SFO has been an industry leader for many years now in reducing greenhouse gas emissions at airports. It continues to be a very high priority for SFO to do so. The emissions from taxiing aircraft are a really large part of an airport's emission's profile. And so we believe it's incredibly important to find, you know, innovative ways to reduce those emissions. We believe that funding and offering incentives for the production and use of renewable aviation fuels is an essential part of doing that. And so again, we support their inclusion in this program.

And I also just want to briefly mention that the California Airports Council is in support of this as well.

Thank you.

MR. NOYES: Good morning, Madam Chair and members of the Board. Graham Noyes. I'm actually appearing on behalf of two different organizations this morning, so I'll start with the more general, the Low Carbon Fuels Coalition. We stand in strong support of the proposal, and really appreciate the great work that has gone on at
all levels within the agency to think about the fuels proposal.

I want to flag one particular aspect that's already contained in the report. One that California within its mobile source strategy now has a very aggressive goal on the diesel side with this very low NOx, very low PM diesel fuel. It's not there yet. It does not exist from a production capacity standpoint in the marketplace. So we're going to need to see new production capacity established, hopefully here in California, to meet that planned demand that we're going to have in this State.

And so that is why the Low Carbon Fuels Coalition has been participating throughout the process, and was also supportive in trying to get the funding established in the first place here for a production incentive, for California, for long-term development of new projects in this State. And that's referenced in, I believe it's, page 83 here about the longer term plan, innovative financing mechanisms, 10-year spending authority. We support the discretion going to the Executive Officer to continue with the workshops and hopefully implement those components into this program.

Switching gears now. I also represent several producers and plan producers of biojet fuels. We've been
hearing a lot about biojet here today. The aviation fuels industry is very excited about what's happening in California. We have AltAir Fuels, is one of my clients, that is now producing in Paramount, California. Fulcrum Bioenergy and Red Rock Biofuels are also planning to provide biojet fuels to the state.

On another issue we're engaged already with top folks at ARB around the concept of bringing aviation fuels into the Low Carbon Fuel Standard, and we appreciate this proposal that allows for certified fuels with carbon intensity levels that meet the program requirements to participate in this very low carbon fuels incentive program. It's a great first step to bring aviation fuels into the California program on an opt-in basis. And so again, we express our support for this measure.

Thank you.

MS. VAN OSTEN: That's what happens when you follow somebody tall.

Good morning. Kathy Van Osten, MVM Strategy Group. And I'm here to represent United Airlines this morning. A lot has been said, so I don't want to repeat information. But I think first and foremost, we really want to express to the Board and the staff how grateful we are for the dialogue, that's taken place over the last several months. We feel it's been very productive. We've
been able to answer questions, not only within this program, but as we've looked at the LCFS program, which we strongly support.

So I think rather than talk about AltAir, you know, United launched its first commercial airline flight. They're using renewable jet fuel in their daily operations out of LAX. AltAir, Graham's client that he mentioned earlier. They're the first facility in the globe around the world that actually is tooled to make renewable jet fuel.

And, you know, despite that fact, because of the disparity in the incentives, we see that it's working for the renewable diesel, because that's his preference to produce. And with renewable aviation fuel, we do have an off-take agreement. We have a three-year, 15 million gallon agreement. We would like to purchase more, but oftentimes we find that there's a lot of competition for the time at that facility. We know that he wants to increase his production by 300 to 400 percent, which is magnificent.

We've got a lot of folks that are coming to the table, other airlines, other international carriers who would like to purchase the renewable aviation fuels. So the demand is there. We would like to see other facilities established in the State, perhaps through
reconfiguring other old or vacant facilities.

But for the most part, we just want to reiterate that United Airlines we appreciate your work. We do support renewable aviation fuels being included in the low carbon fuels incentive program, and certainly encourage your adoption of that, and look forward to working with your staff and the Board in the future.

Thank you.

MR. PIMENTEL: Madam Chair and members, Michael Pimentel with Shaw/Yoder/Antwih here today on behalf of the California Transit Association, and the Boeing Company. We'll be speaking to two specific aspects of the plan.

So included within this funding plan is significant new funding totaling 83 million for the HVIP, zero emission bus, pilot commercial deployments, as well as low NOx engine incentives. As you heard today, many within my membership, whether they be transit agencies or original equipment manufacturers, are looking to these funding sources to facilitate the transition to ever cleaner transit fleets, to help the State achieve its greenhouse gas emissions reduction goals.

We are therefore a bit concerned by the most recent cap-and-trade auction, which, as you all know, resulted in a minor sale of emissions credits, and may
have some influence on the legislature's willingness
and/or ability to fully fund the plan.

        We will continue to urge the legislature to fully
appropriate the $500 million identified for this plan.
However, if that funding does not materialize, as was the
case in fiscal year 15-16, we will respectfully request
that the ARB, to the extent possible, maintain funding
levels for these programs and not zero-out funding as was
the case in this previous fiscal year.

        Now, on behalf of the Boeing Company, I'd like to
speak to the very low carbon fuel incentives program. The
Boeing Company is proud to be not just the world's largest
aerospace company and largest U.S. exporter, but is proud
to work with nearly 3,000 businesses in California to
create jobs and economic opportunity in the aerospace
sector.

        Boeing's environmental actions are another
example of our commitment to California and customers
seated here today, United Airlines and Southwest Airlines.
Boeing is committed to sustainable aviation biofuels
development to support our industry's sustainable and
reduce its carbon emissions. Produced sustainably,
aviation biofuels reduce carbon emissions by 50 to 80
percent compared to petroleum through its lifecycle.

        Enabling sustainable aviation biofuels therefore
to participate in the very low carbon fuel incentives program would create strong financial incentives for the production of such fuels, which would allow the aviation industry to better support both California's greenhouse gas emissions reduction goals, as well as their industry's objectives for carbon neutral growth.

Thank you so much

MR. LEACOCK: Good morning, Chair Nichols and members of the Board. My name is Kent Leacock. I'm with Proterra, a zero emission battery electric bus manufacturer. Proterra supports the 16-17 proposed fiscal year plan, and we would like to thank the leadership and the staff of CARB for a thoughtful plan that addresses the needs of multiple stakeholders and multiple categories of low carbon transportation.

We think that the way they've allocated the funds is fair and equitable and allows all the players in this arena to have a chance to grow the greenhouse gas reduction from their particular technology. So in conclusion, we understand the challenges at the legislature. And Proterra and many members of our consortiums in the heavy-duty transit world will be working hard to advocate at the legislature for the approval of said funding. So we would encourage strongly the approval of the plan.
Thank you.

MR. CHAVEZ: Madam Chair Nichols, members of the Board, my name is Nicholas Chavez. And I'm here on behalf of the California Association of School Transportation Officials, and the School Transportation Coalition.

We are here in support of the rural school bus replacement pilot program. Since last year, we've been working with Senator McGuire who authored SB 523. And we applaud the work of your staff. We've been working collaboratively with Senator McGuire in replacing these old dirty buses that are not only dangerous to the students, but the environment as well.

This program is essential in replacing buses in districts hard pressed to do so on their own, as a result of limited discretionary funding and local resources for replacement. If approved the grant opportunity would offer the most challenged school districts a path to join the State and lead the nation to reduce greenhouse gas emissions. It would allow school districts to use awarded funds to replace buses with the latest in alternative fuel vehicles.

Thank you.

CHAIR NICHOLS: Thanks.

MR. REA: Good morning, Chair Nichols, Honorable members of the Board. My name is Mike Rea. I'm a
director of school transportation a joint powers agreement
serving 17 school districts in Sonoma County. I'm also
the government relations chairperson for the California
Association of School Transportation Officials, as well as
the co-chair of the School Transportation Coalition.

By our estimate, there are over 3,500 school
buses in California that still qualify under the lower
emission school bus program. Many of those school
districts, however, are in small air districts and rural
areas of the State that don't have access to funds that
larger air districts may have.

These older buses are less safe and more
polluting and potentially could harm the health of
students and youth that ride the bus. We appreciate
Senator Mike McGuire's work on this. We also appreciate
and support the Air Resources Board's proposed $10 million
for rural school bus replacement pilot program and we also
appreciate the staff work on the details of this program.

Thank you very much.

CHAIR NICHOLS: Thank you. Thirty-five hundred
is still quite a lot of buses out there in need of being
replaced. I thought we were doing better than that.
We've had a goal for quite some time now of getting down
to zero of those buses.

Any comment on that, staff?
MOBILE SOURCE CONTROL DIVISION CHIEF KITOWSKI:
Let me start by just saying, yes, we would like to go faster and wish we had more money to do that. Part of this is whether you're setting a goal for the pre-'77s, which was the absolute oldest and the dirtiest --

CHAIR NICHOLS: The worst of the worst.

MOBILE SOURCE CONTROL DIVISION CHIEF KITOWSKI:
-- and the ones that did not meet federal safety standards. And those we've done an effective job of if they're not all off the road -- and I'm pausing slightly, but if they're not off the road, there's a handful left and that's it. And then you start sort of graduating up. They're a little bit cleaner and they're a little bit safer, we would certainly like to make stronger efforts to get those off the road as well.

CHAIR NICHOLS: Thanks.

MR. NORRIS: Good morning. My name is David Norris. I'm the director of maintenance operations and transportation at Lakeport Unified School District. And I'm here to -- in support of the $10 million rural school bus replacement program. Lakeport is a small rural town located on the west shore of lake -- Clear Lake in Lake County.

The Lakeport Unified School District has approximately 1,550 students, and we provide
transportation services to approximately 470 students daily. Lake County has a relatively high poverty rate, and about 61 percent of our students are on the free and reduced program for meals.

Lakeport applauds the school bus replacement pilot program and ARB's efforts, which will reduce emissions and cause -- caused by old dirty, polluting school buses, so that school children inside and outside the buses won't be -- will not be exposed to both cancer causing and smog pollutants.

We are still operating our oldest school buses, which are 1987, 1990, and 1991, all between 20 and 29 years old. For many of our students, the yellow school bus is their only option for transportation to and from their education. Many families do not have cars, they live out on our reservations, and they parents rely again on our school buses to pick their students up.

Transporting 70 plus students in a clean, safe bus is clearly the best choice for our students, and the environment. I urge the adoption of the $10 million rural school bus replacement pilot program and look forward to the legislature approving the funding for that, so that we can get some nice buses on the road.

Thank you for your time.

CHAIR NICHOLS: Thanks.
MS. O'BRIEN: Good morning, Chair and members.

Rachael O'Brien with the Agricultural Council. Ag Council is a member-supported organization advocating for more than 15,000 farmers across the State, ranging from farmer owned businesses to the best known brands in the world.

Ag Council is supportive of the proposed funding plan for low carbon transportation and fuels investments and the Air Quality Improvement Program, specifically the expanded agricultural equipment trade-up pilot project in the San Joaquin Valley. Targeting this investment in the San Joaquin Valley aids in accelerating needed adoption of cleaner diesel engine technologies in mobile ag equipment.

We're also supportive of the three proposals for low carbon transportation allocation. They are the non-freight off-road allocation for advanced technologies and efficiencies for agricultural equipment, the zero emission freight equipment pilot commercial deployment project, and the very low carbon fuel incentive that could be applied to the capture and use of biomethane from dairy digesters.

In closing, Ag Council recognizes the importance of reducing GHG emissions and criteria pollutants with incentives. We thank staff for identifying these proposed funding opportunities, and look forward to helping in their success.
Thank you.

CHAIR NICHOLS: Thank you.

DR. LOVELACE: Good morning, Madam Chair and members. I'm Ed Lovelace from XL Hybrids. And we're a connected fleet electrification company that sells electrified vans and trucks nationwide with over 25 million customer miles at this point.

I want to thank the Board and staff for all of their efforts over this planning year. Overall XL is very supportive of ARB staff's portfolio investment strategy, and consultative approach and the resulting plan before the Board today.

We have a few comments though for potential enhancements. First, we'd love to see increased flexibility on the HVIP conversion product caps. Second, we'd like to see increased flexibility on the HVIP voucher amount adjustments, allowing staff to adjust those amounts to different market conditions that occur.

Finally, we'd like to see higher funding proportions for first-come first-served technology agnostic programs, such as HVIP and such as the Low Carbon Fuel Standards. One of the challenges we have with pilot programs, and we're not suggesting eliminating pilot funding. We understand the value and the critical importance of that.
But one of the challenges, of course, is that the funding is uncertain, and the funding takes a long time to come around. And so we'd like to see more programs targeted at rapid and higher volume deployment. As you've heard from previous speakers, they're already showing what can be done with higher volumes of deployment.

Thank you.

CHAIR NICHOLS: Thank you.

MS. VAZQUEZ: Good morning, Chair and Board members. My name is Diana Vazquez. I'm here on behalf of Sierra Club California. And specifically, we're here to support the funding plan that has been already presented. But once specific issue that we're here for, specifically the issue of the budget constraints that have been -- has been going on in this budget cycle.

As previous speakers mentioned, we're working hard across the street to really get this money allocated into the programs that you guys have been presenting. But specifically, we're here to talk about the Clean Vehicle Rebate Program. A lot of our members and a lot of citizens across California are depending on these rebates to actually purchase these vehicles. And for us, as organizations and advocates, we've been advocating to really have these individuals consider zero emission vehicles versus conventional vehicles.
We're afraid that if this gap continues, these individuals are going to actually not even consider these vehicles, because a lot of these individuals, as you all know, do depend on these rebates to actually even purchase these vehicles to actually make them affordable. So I really urge the Board to consider finding ways to fill in the gaps, and seeing if there's even options to see if we can actually help individuals who are on the wait list.

We don't -- we understand there's going to be budgeted constraints and this is the message that we're trying to advocate to the legislature and the Governor. But in the mean time, if we can actually find different ways we can actually provide alternatives during this -- during these couple months, okay? Thank you.

MR. MAGAVERN: Good morning. I'm Bill Magavern with the Coalition for Clean Air. You have before you a funding plan that is sound and was developed through a lengthy public process with a lot of involvement from all the interested parties, and we urge you to adopt it today. But what's missing is what's actually most important to any funding plan is the funding.

And for the second year in a row, we're here without having that funding. So two things that I ask of you. One is that this Board convey to the Governor that this lack of funding is posing severe obstacles to the
plans that he has laid out, his goals on climate, on zero emission vehicles, on freight, and on petroleum reduction are being hindered.

I'll just give you one example. We got an email yesterday from a couple that had just entered into a lease agreement for a Nissan Leaf, because they had been told that a $2,500 rebate would be part of that deal. And they actually needed that rebate to make the deal work for them. And we're shocked to find out that it would not be forthcoming.

And then secondly, if we do get into the unfortunate situation that we did last year where less than full funding is made available by the budget process, we ask that you not cut disproportionately the equity pilot programs or the heavy-duty programs, because that's what happened this last year.

And my colleague Shrayas will be addressing the light-duty equity project specifically. I wanted to say on heavy duty that we have the Sustainable Freight Action Plan due to come out next month. And that plan will require, and you'll hear this from us, you'll hear it from industry, from local governments will require a lot of incentive funding, in fact, more than is available in this plan.

But having what's in this plan will be a good
start. And to not have it will pose a severe problem to our efforts to clean up trucks, buses, and other freight equipment, which as you know, the diesel exhaust from those engines falls quite disproportionately on low income communities of color. So we need to make sure that we send as much money as possible into those programs that are helping our most disadvantaged communities.

And finally, a couple words on fuels. We support the staff proposal that for the low NOx engines, we have 100 percent renewable fuel requirement, and we support having in the fuels incentive program, a disadvantaged community benefit component to that. And we believe that the benefit to the disadvantaged communities comes when that cleaner fuel is burned in that community, because it will provide an air quality benefit compared to burning the diesel.

Thank you.

MR. JATKAR: Hi. Good morning, Chair Nichols and members of the Board. Shrayas Jatkar with Coalition for Clean Air.

I first want to thank staff for the great public process of the work groups and the workshops held earlier this year. We look forward to continuing that dialogue once the funding plan is hopefully approved and once funding is actually appropriated for these important
projects.

And on that note, I'll just comment that when it comes to the light-duty projects, what we saw last year was funding appropriated to the Clean Vehicle Rebate Project, but -- and for the Enhanced Fleet Modernization Program the Plus-Up component, which retires some of the older highly polluting vehicles and helps folks get into a cleaner electric vehicle.

So while CVRP and EFMP were -- the Plus-Up were funded last year at lower levels than we anticipated, many of the other -- really, all of the other equity pilot projects went unfunded. These are projects that provide significant benefits to disadvantaged communities, to low and moderate income consumers. And so we encourage that in those conversations that you may be having with legislators and with the Governor's office to really underscore the importance of all of the different projects, and not just prioritize or single-out some of the vehicle and voucher rebate type programs, but the grant funded ones are very important as well.

Also, in terms of funding, I want to just encourage some action that may be already in the works, but if it's not just to encourage an expediting of a couple of activities in terms of funding. One is now that the fourth quarter auction has happened to make sure that
the remaining funds for Plus-Up are spent, and also to
begin spending -- or authorize local air districts to
begin spending base EFMP funding that is available now.

And also in terms of funding, if there is an
early release from the legislature of funds for the Clean
Vehicle Rebate Project, we encourage that those funds do
go to low and moderate income consumers first who are
already in the backlog.

I wanted to make a couple comments on the Clean
Vehicle Rebate Project and Plus-Up. And these are
explained more fully in our letter that we submitted
earlier this week. But when it comes to CVRP, we do
support the recommendation to begin looking at transition
to a point of sale rebate model with prequalification. We
think this will increase the accessibility for low and
moderate income consumers, and encourage prequalification
as well to make sure that we're addressing any free
ridership concerns.

One point is that we do encourage a look at
lowering the income cap. While it is -- has been in place
for a few months and we're supportive of that, we do
believe that it should be considered to go lower,
especially if the appropriation is much less than we
anticipate, and also looking at data based on the last
three months of having an income cap in place.
And lastly on Plus-Up, we do support the expansion to newly participating air districts and appreciate the staff's flexibility and funding approach. Thanks.

CHAIR NICHOLS: Thank you.

MS. HOLMES-GEN: Chairman Nichols and members, Bonnie Holmes-Gen with the American Lung Association in California. And I'm pleased to be here to share the support of the American Lung Association in California for this investment plan for low carbon transportation fuels and AQIP, and say that we believe it provides a good balance of investments to meet our air quality, our petroleum reduction, and our climate goals, and, of course, we also support the allocation of funding to actually get these -- this funding out on the ground and get these projects working to promote -- to provide the air quality benefits that we so strongly need.

The American Lung Association has been working hard to try to promote the allocation of these funds and we look forward to working with you. We need to get them out this year. We don't need to have more delay.

We are strongly supportive of the underlying premise in this funding plan and the freight plan to move quickly to zero emission options, and to increasing the availability of those options in the light- and heavy-duty
sector. We think this is critical to our air quality
goals and to reducing lung and cardiac illnesses that are
linked to the pollution that we're facing.

As you've heard from technology developers, this
funding that you're approving today, the funding plan, is
critical to keeping California in a leadership role and
it's very heartening to hear the array of funding
technology -- of technology developers up here talking
about the zero emission buses and zero emission options
that are being produced and that are moving forward
because of these incentive funds.

I wanted to make a few quick comments that we are
supporting the updates to the CVRP, including the
additional outreach and education component. That's an
important piece and the point of sale mechanism. We
support the equity package in the light-duty sector, and
the expansion of EFMP Plus-Up, and, of course, the funds
for the zero emission bus and freight demonstration
deployment projects.

And I just wanted to note that we really
appreciate that where the funding plan does allow for near
zero, such as the low NOx trucks that you have indicated
that there will be a renewable fuels requirement. And we
think that's really important to make sure the funding is
focused on the cleanest, most sustainable options.
You've heard about other -- many other elements that we do support. There's always room for improvement. We continue to work with you on those areas, but bottom line is we need to work together to get these funds out and to publicize the great projects that are being funded through this effort that are bringing real benefits in communities. And we'd like to work on that aspect too.

Thank you.

MS. TUTT: Madam Chair, Members of the Board, Eileen Tutt with the California Electric Transportation Coalition. I'm here today representing a much broader coalition. If they all signed up to testify, your list would be twice as long, so how many points do I get?

(Laughter.)

CHAIR NICHOLS: Thank you.

MS. TUTT: I first want to say really a resounding thank you to the staff and to the Board for acting so responsibly and recognizing the importance of these incentive programs, and working so diligently with us to find -- you know, to support the plan that you have today, which we fully support. I mean, we've had to negotiate certain things, but we really appreciate staff's what they've done with really what is not enough money. Five hundred million is not enough money, but we will continue to work with the legislature and the Governor as
the whole -- as a whole large coalition and with Charge Ahead to get this money allocated to you.

We have full confidence that it will happen, and what we're hoping for is that we'll get a three-year appropriation, so that we don't have to go through this again next year. But anyway, thanks again, especially to staff and to the Board.

CHAIR NICHOLS: Thank you.

MS. McGHEE: Good morning. My name is Lisa, and I'm with the San Diego Airport Parking Company. I also want to say thank you very much to the work that the policy makers have done to support clean transportation. I actually am an early adopter. I have taken advantage of the ZEV HVIP. I purchased three medium-duty electric vehicle buses and could not have done it without the HVIP and would not have done it without the HVIP.

I expressed my appreciation for that, and the continuance of this plan and in support of it. I, too, believe that this $500 million is not enough to support the goals that we want to achieve for clean transportation. The expense of the vehicles are 100 percent more expensive. And I also want to add to the fact of the HVIP funding, I continue to support.

I also address concerns as it relates to infrastructure. We have got to learn a lot about
light-duty infrastructure. But as you move into the fleets, we're talking about a medium-duty vehicle to heavy-duty vehicles, the type of battery and charging is a much different complex experience. It's extremely expensive.

One year ago I did not know what a kilowatt was compared to a kilowatt hour. I know about three-phase wiring, single-phase wiring.

(Laughter.)

MS. McGHEE: And all of it's become necessary because of the costs associated with infrastructure for ZEVs. Essentially speaking, once you buy a ZEV, you've got to own only infrastructure. And it becomes another big obstacle that is super challenging. And I express, as we move into multiple dwellings, apartment complexes, workplaces, it's all going to come down to the same experience that I'm having with infrastructure. And it's not only just the cost of investing in the infrastructure, installing the infrastructure, but also rate costs.

And I would like to see the program focus a little bit more on what fleets can do to bring lessons learned to the forefront. And there is advanced technology and infrastructure that includes other types of infrastructure beyond grid-tied that is at zero cost for utility bill or zero cost for a kilowatt. We can drive
off our sunshine.

And there's also fast charging that becomes somewhat necessary for fleet operators, because of the vehicle miles traveled. The range of electric vehicles is very short. You know, we used to have 300 miles in our vehicles, now we're getting 100 miles. So trying to fuel-up with the element of time is critical.

Imagine this, you know, it's going to take you three -- to go to Las Vegas it's going to be five and a half hour drive in a convectional fueled vehicle. Now, if you go in a level 2 charging electric vehicle, it's going to take you 12½ hours. And so my point is there's a lot of lessons to be learned when we're talking about vehicle miles traveled with a range of a vehicle that's a third. And infrastructure is one of the ways that we need to focus on learning. So thank you.

CHAIR NICHOLS: Thank you.

MR. EDGAR: Madam Chair, Board members. My name is Evan Edgar from the Compost Coalition. We make RNG. We're making carbon neg fuel today. I'm here on behalf of the Clean Fleets Coalition. We use RNG. We got our fleets off diesel. We're CNG trucks, so we're actually making RNG. I'm here today to talk about we're at the intersection of re-thinking methane.

Next week, there's a good conference on it. But
we're here to support the short-lived climate pollutants. Right now, all that methane comes out of the landfill it's 30 years with all of the organics. What the short-lived climate pollutants does, it gets organics out of the landfill by 2025. We can make RNG in 30 days, and put it back in our trucks, not 30 years and have it leak out of a landfill.

So on behalf of the California Compost Coalition, we are supporting the Low Carbon Fuel Standard program at 40 million. It's a great program. We're making fuel today in Sacramento at Atlas Disposal. We're making fuel down at SFO at Blue Line Transfer Station. We have many more plans in the future, and we compliment CalRecycle and the California Energy Commission. And this RNG fund is great.

On behalf of the Clean Fleets Coalition, we have transitioned off of a diesel fleet. We have a CNG fleet. And with low NOx engines, we are set to purchase a lot of trucks. The garbage industry is about 15,000 fleets. We have about 3,000 on CNG, and we want to get off of diesel by 2025. We want to get off of landfills by 2025. And this plan today gets us there.

So I want to thank staff. They've been listening to us. We've been to a lot of meetings with Julia, from Bioenergy Association of California, in order to support
the funding of this Low Carbon Fuel Standard, as well as
to increase the funding for trucks. Eighteen thousand
gets us there, but going up to 25 would be great.

So on behalf of the Clean Fleets and Compost
Coalition, we're at the intersection of making it happen
now, immediately. We have the technology, and now we have
the funding.

Thank you.

CHAIR NICHOLS: Thank you.

MR. WHEATLEY: Madam Chair, Board members, thank
you very much for the work that you've put into this plan,
and also for giving me the opportunity to speak here
today.

My name is Desmond Wheatley, and I'm the
President and CEO of Envision Solar, a San Diego based
technology innovation company, which amongst other things,
invents and manufactures here in California solar powered
electric vehicle charging stations. We hire a fantastic
team of combat veterans, disabled workers, and others
right there in San Diego manufacturing products, which
allow Californians, and Americans, and now even people
overseas to drive on sunshine.

We support any efforts to fund low carbon fuel
vehicles. But particularly, where infrastructure is
concerned, we and our other colleagues in the industry who
are deploying electric vehicle charging infrastructure
have invested heavily in this space. We've deployed
thousands of EV chargers, but nowhere near enough. We're
going to need about 100,000 EV chargers a year to meet
Governor Brown's excellent goals of 1.5 million vehicles
on the road by 2025. And we're not going to get it Done
alone, so we need your help.

I particularly want to emphasize the idea of
using renewable energy, not as a last-ditch solution when
we can't make the 100-year old grid work to support this.
I think we should be looking at renewable energy as the
first and best solution for charging electric vehicles.
We know works. We have excellent customers like Caltrans,
New York City, many others all over the world who are
driving on sunshine because of our products. It
definitely works. There's no question about that anymore.
We just need to emphasize it as the first option, not the
last option.

Winston Churchill once said that Americans always
do the right thing, but not until they've exhausted all
the other possibilities.

(Laughter.)

MR. WHEATLEY: Let's not prove him right where
this infrastructure is concerned.

It's right to drive on sunshine. It's good for
the environment. It's good for the economy. It's good for our employees. It's good particularly low income people too. Remember, solar power, once you've paid for the infrastructure, is free. That's the best way to get low income people driving around and being productive in electric vehicles.

There's really nothing wrong with it, and we need your support. So please, as we look at funding in the future, let's put renewable energy first, not last, and let's incent it and encourage it.

Thank you for your time.

CHAIR NICHOLS: Thanks. We have one other person who filed a card, I guess, after the list was finished Thomas Lawson. I was handed this blue card for Thomas Lawson.

Going once.

Going twice.

Okay. Then I think we've finished the list. And it's time for Board questions or discussion. I'll just identify the items that I think -- I know we need to talk at least about the -- where we're headed in terms of responding to the local districts, at least some of the district's desires for a stronger role in administering the program and how you intend to approach that.

I was also struck by the point that we may not
have applied a filter or a lens to looking at this plan
that relates to the short-lived climate pollutant strategy
that this Board has embraced and is responsible for moving
forward on. It's not something that is referenced
particularly. I think there's very strong rational. And
I should have started by saying that I recognize that this
is a very difficult delicate task both to maintain support
and momentum in programs that have already been started
and launched, as well as moving into other areas where we
need more emphasis, never with enough money to do
everything that we want to do.

And so I do want to acknowledge and respect the
work, not only of the staff, but also of all the
stakeholders who contributed and really were willing to
accept the fact there was a balance and that no one was to
going to get everything that they might have wanted.

But having said all of that, I do wonder if we're
doing everything we can to move as fast as we can to get
rid of short-lived climate pollutants through this effort.
And so I'd like to at least ask staff to think about and
address that question. But I think other Board members
have issues that they might like to raise as well.

So why don't I start down at the far end of the
table here and just recognize anybody who wants to speak
at this point.
BOARD MEMBER TAKVORIAN: Thank you, Chair Nichols. Thank you to everyone who was here today to testify. I learned a lot. I really appreciate everyone's involvement today as well as your involvement throughout this long process, and I want to commend the staff for a really good public process that includes multi-pronged agencies, as well as a really complex program that relates to a lot of different agencies as well as a lot of different regulations.

I appreciated the multiple public comments on the need for more support for new buses and bus conversion. I wanted to echo Chair Nichols' statement. I, frankly, was shocked that there are still so many dirty buses out there. And I had a question of how many are there? I wasn't quite clear on the response. Is it 3,500 in the State? So I wanted to get a thought about that.

Frankly, I don't see why this isn't our highest priority. And I'd like to know how much it costs to replace all of the school buses? I mean, these are our kids that are riding on buses that -- where they're getting direct exposure to particulate pollution. I would challenge anyone to tell me what's a higher priority than that from a public health perspective, for all of the goals of the agency. I have to say I don't know what I'm missing.
But I also feel that disadvantaged community -- children that are in disadvantaged communities they are, as you all well know, exposed to multiple pollutants. There's lead in their homes. There's excessive air pollution in their communities. So they are getting double, triple exposures. And that's just not acceptable. So here's an opportunity, and frankly in this funding plan $10 million doesn't seem like enough, even with a lowered funding allocation. So I'd like to ask us to take a look at that. And perhaps we have a chance -- I don't know if there's a silver lining to the budget not having gone forward yet, but maybe this is one of them. So that's one thing.

The other is that I'd like to ask, and I talked about this a little bit with staff, but I do think that there needs to be incentives for the resale of ZEV passenger cars. And I -- frankly, I just don't think that financing is good enough, especially for low, low income folks. I think that it is important to get those vehicles. I really appreciate the incentive programs. I think they've been highly effective. We need to then continue those into our low income communities, and I think that's a way to do it.

I also appreciated the statements from -- in regards to the bicycle incentive pilot program and
especially focusing on low income communities. I mean, what's a bigger bang than that. And just even buying the bikes, never mind the incentive, is a much lower cost than it is for incentives for the passenger cars. And the vehicle miles traveled reductions are enormous, and I know what kinds of bikes folks are driving -- or riding in our communities, and they definitely need to be replaced.

So I think that's something we should really take a look at. Lastly, I'll just say if the full allocation is not provided in the budget this year, I want to really stress, which I think many have done, that the reductions not come from those programs that benefit disadvantaged communities.

Thanks.

BOARD MEMBER DE LA TORRE: Just two things. One, I am very interested in the jet fuel issue. I was there when the first airplane took off from LAX with the alternative fuel, the biofuel. And the work that's been done in Paramount to convert that refinery I think really moves things in the direction we've all been talking about. And again, interestingly, the U.S. military are the ones who have pushed this technology and have developed it over time to make it commercial is -- I think, should be one of our priorities here.

The second is on CVRP. And I had a conversation
with staff about this. Going forward, and I've said it before, but I'm going to say it every time it comes up, we need to have a plan ahead of time for a graduation for these vehicles by vehicle type, where we set a marker of what is the number at which a vehicle is -- has graduated does not need support from CVRP? And the time to do it is now before we have a vehicle out there that's selling so well that we have a discussion with that vehicle in mind.

Right now, we don't have -- we're not anywhere near there, so now is the time to set a marker where we say -- I'm just throwing a number out there -- you know, 100,000 units in a year, or over a couple of years. That vehicle is selling very well. It doesn't need our help anymore. That's one.

And two, I was over in the legislature a few weeks ago, and someone raised the possibility of using the rebate from CVRP or the sticker for HOV, not both. And I think that is something that we need to start considering, because there is absolute value in that sticker. And so again, because these dollar amounts are getting so big, maybe it's time to have a conversation among ourselves about one or the other, not both. Thank you.

CHAIR NICHOLS: Next. Go ahead. I was just assuming we would go in order here.

BOARD MEMBER ROBERTS: Thank you, Madam --
CHAIR NICHOLS: You don't have to speak if you don't want to.

BOARD MEMBER ROBERTS: I'll be brief. I like the biojet fuel.

CHAIR NICHOLS: Yeah, that's a good one too.

BOARD MEMBER ROBERTS: I like a program that is changing over the school buses, and I very much like a program that's putting some emphasis on hydrogen. I think the conversation that we heard late in the testimony about the rental car agency and the electric buses and all of a sudden discover that there's more to it than just buying a few buses, and the limitation on those buses is kind of what I've been suggesting for a long time as we've talked about the public transit agencies. The electric buses are kind of a niche, and probably work well in some instances.

But if you have to run -- if you're in an environment where you have to run a bus for 300 miles, and even more than that as we do in some of the larger transit agencies, where the bus stays out all day and we just replace the driver periodically, we need a driver maybe that can go on for as long as the bus does. But both of them go well beyond the range of any electric vehicle.

And I think that's going to be the issue, so I -- but I like what I'm seeing and developing in the hydrogen. And I think it gives us another alternative that may have
a much larger role to play than currently.

So with that, I think the program -- the only question remains what's going to be there.

CHAIR NICHOLS:  Great. Okay.

BOARD MEMBER SHERRIFFS:  Thank you. A couple of comments, and I do have three questions. But I'll start by saying I'm all in favor of moving forward on the jet fuel thing, straight from the dairy.

(Laughter.)

BOARD MEMBER SHERRIFFS:  Yeah, I really appreciate, boy, the energy in terms of the testimony, and thank the people from the San Joaquin Valley who came and testified, cities, industry, the Ag Council, lots of important -- we're talking low carbon fuel, but this clearly is so important the co-benefit in terms of air quality issues and helping what we're struggling with in the valley.

You know, thanks to Porterville, Visalia for your testimony And your leadership. The AC Transit and Sunline for being such pioneers in really proving these methodologies, and also reminding us, which I think is really important, because over and over, this is not enough money. But one of the lessons that we hear from AC and Sunline is, yes, but these small steps are very important. In fact, they lead to everybody being able to
take the bigger step.

I mean, it's really phenomenal that you hear 1.3 million capital investment for a bus. But as it scales up we're talking $300,000, and also hearing that people aren't afraid of the competition. They say great. That's what we need. We need the scale that let's us do it less expensively too.

The ag community talking particularly about methane and, has been mentioned, we really need to think much more about short-lived climate pollutants and how they fit in this plan, and how to get the most out of this plan to help with. And methane is clearly a big one and key for the valley.

As the owner of a battery electric car, yes, I wonder about shouldn't we give -- how we are going to get this in to people with less means? And -- but I'm also reminded, boy, the dealers -- so I keep getting messages, don't you want to sell your all-battery car? But what are all the emails asking me to buy?

Nobody has said are you happy with your battery car? Do you want another battery car? They're, oh, we've got this great sports car. We've got this other car. Hey, wait a minute guys, let's continue to promote it. So there is a real disconnect, but I think we do need to rethink are we going is support people buying those
used cars, because otherwise how are we going to get them into the communities and broaden the investment the involvement.

A recurrent theme has been, and I think staff asked -- answered a little bit, well, we hope we get the full amount, which is not enough. But what happens if we got a quarter, or a half, or the legislature releases three-quarters? How are we going to now rescale this?

And clearly, we want to do it quickly, because it's been emphasized over and over. Fleets are turning over as we're struggling with this. And every time we delay, it's another vehicle we want to get off the road that we going to have to deal with later.

And one particular question in terms of low carbon fuels, how soon might these biofuel investments impact the big problem we're facing in the valley in terms of biomass -- ag biomass, and the fact that we're losing the facilities that can process biomass? How soon might biofuel facilities help deal with that problem?

CHAIR NICHOLS: Okay. I see staff are taking notes. I think they're going to try to respond.

BOARD MEMBER SHERRIFFS: I'm always encouraged when staff are taking notes.

(Laughter.)

CHAIR NICHOLS: I think they're going to respond
at the end to all the questions.

Go ahead.

VICE CHAIR BERG: Thank you very much.

I agree with several of my fellow Board members and the items that they have brought up of concern and so I'm not going to repeat those.

I also was in agreement with the Chair, that looking at our CAPCOA partners, specifically how to coordinate these various incentive programs to simplify on behalf of the stakeholders. We've heard that time and time again you guys have done a great job over the years, but to be able to go back and take a look if we get funded this $500 million, I think, would be very well worth it.

I also, and might jump in here before Chair Nichols, but following up on Diane's -- on the school bus, maybe we could look at -- well not maybe. We definitely need to look at what the inventory is, what is the criteria, what's a definition of old now? And let's put a concerted effort to try to figure this out. Because 10 years later after Prop 1B, and as several others, and as we've looked at truck and bus rules and various things and we've heard maybe we could figure out how to resolve this school bus problem, once and for all. And then finally, I think I'd be remiss if I just didn't express how important it is that we get this funded.
I just -- in thinking about Plan B, it's so painful. It is so painful that we have a wait list again on CVRP. We have fabulous programs that we're looking at for the disadvantaged communities to bring these really great technologies forward. We're being tasked with doing that. We have a -- no question, a goal that we've got to hit. We have got to have this funding.

And so, however, I think I can say on behalf of my fellow Board members, however we can help, however we can educate, whatever you would like us to do, we're here to help.

Thank you.

CHAIR NICHOLS: Okay. Let just keep going.

BOARD MEMBER RIORDAN: Thank you. Let me just share that we do have to work very hard to, you know, infuse the enthusiasm that's in this audience and the support. I didn't know of a time when I've seen all of the support positions, and their are absolutely zero opposition positions. And I honestly think those who were neutral were really supportive.

(Laughter.)

BOARD MEMBER RIORDAN: So may I say -- may I say that you need to take that enthusiasm and that support to share with those who are representing you in the legislature, and really bring it home to your particular
issue, whether it is a school bus, or whether it is a light-duty vehicle, or whether it is a vehicle that somebody might drive, and don't forget to say how many times there are jobs created in their district by some of these various efforts, and that's a very important thing, particularly in areas that need to have more jobs.

If we could somehow harness all of this enthusiasm in this excellent report that staff put together, I think we will all be very successful. So this just moved from here to there across the street.

(Laughter.)

BOARD MEMBER RIORDAN: And I'm hoping we can get this funded. Thank you.

BOARD MEMBER MITCHELL: Thank you. And those are really wise words, Barbara, because we -- I want to thank staff for a really excellent plan here. You've covered everything very well. And I can't imagine a better job than what you've done.

A couple of issues came up in the comments. And I will just address those. First of all, I want to say that I'm delighted to see the airline industry coming forward in supporting a low carbon fuel for our jets that are out there. This is an important move forward.

But the other issue that I want to touch on is the one that was raised about the administration of the
program in the local air districts, and in connection with that, some comments made about the $18,000 incentive for low NOx trucks, and our staff's response on that, which was, well, you can combine that with the other programs.

So that really was what leads to the problem with administering these funds and making sure that if you're going to apply for, say, Carl Moyer, that can you then accompany that with another application for some other funding source, and the administrative burden that that might produce, how do we do? And I just think, you know, that's an issue that we need to take a look at.

Also, the comment was raised is 18,000 enough? And one commenter suggested it should be 25,000. My own thoughts on this are that I would rather increase the incentive funding, so you get some trucks out there, rather than to have it too low, and it doesn't get done. So you could have fewer trucks in that low NOx category, but at least you have some out there and you begin the transition into that -- into that new technology.

So that's just kind of my opinion here, but take it however you'd like, and -- but I think you need to have a look at is 18,000 really enough. And how do we -- if we're going to use that, how do we coordinate it with other programs?

Thank you.
BOARD MEMBER EISENHUT: Thank you, Chair Nichols. First, I want to add my compliments to the staff. This is an incredibly balanced and well crafted presentation that deserves our support and enthusiastic support. I'll add my voice to the comments about biojet fuel as an endorsement of that possibility. And just comment, in no particular order, with regard to the very low carbon fuel subsidy, I think I just want to acknowledge is, I understand it, and you can correct me if I'm wrong, that that has implications for the dairy industry's conversion to biofuels and the production of transportation fuels coming from dairy digesters. So I assume that those -- that activity and the reduction of -- would be captured in that program. So I just want to affirm that.

AIR POLLUTION SPECIALIST PANSON: (Nods head.)

BOARD MEMBER EISENHUT: And what I didn't see, and I'm not convinced this is the place to have it, but I want to make sure we stay on track, there are a decreasing number of biomass facilities in the valley. There are increasing quantities, as was pointed out by our testimony, increasing quantities of dead and dying trees in the Sierra's that are going to pose an incredible hazard. And I think one way to partially remediate that would be in those biomass plants. And I just want to make
sure we don't lose our attention to that detail.

And finally, acknowledging Dr. Sherriff's
comments about the San Joaquin Valley and the testimony.
There is a lot here encapsulated in this proposal to the
benefit of environmental justice communities, and the ag
community, and the San Joaquin Valley in total, and I'm
frankly and we heard from communities, from transit
districts, from constituents. I'm frankly disappointed
that we didn't hear from the San Joaquin Valley Air
Pollution Control District. We heard from other air
pollution control districts, not San Joaquin Valley. And
I just want to make that statement.

So that's all. Thank you.

BOARD MEMBER FLOREZ: Thank you.
CHAIR NICHOLS: Maybe Mr. Eisenhut will lend you
his. His was working fine.

Could we -- someone is coming up to take a look
at it.

BOARD MEMBER FLOREZ: All right. Let me scoot
over near John for a minute.

Madam Chair, I'd like to first say thank you to
the staff. Very, very good briefing we had earlier this
week on the actual plan itself. I would like to ask about
five process and timing questions if I could to staff, and
then I'd like to make some general comments.
First, you know, on the process, I guess the first question I would have is, and I'll probably get -- my comment will probably explain this. But in terms of absorbing additional dollars, is the plan made to do that in terms of sequence, meaning folks that had applied, in some sense, been oversubscribed in certain programs? Is the budget made, in some sense, to seamlessly add additional projects if, in deed, the amount coming from the Governor and the legislature is above 500 million?

AIR POLLUTION SPECIALIST PANSON: Yes. The plan does include contingency provisions in the event that we get both more money or less money. And we have a tiered approach, if we get more money. We would -- we've laid out an approach where for up to $50 million additional above 500 million, we propose to go into the heavily oversubscribed bus part of the truck and bus pilot solicitation, as well as the also heavily oversubscribed rural -- not rural, multi-source demonstration project. Basically, two projects where we had big solicitations. There's good projects ready to fund.

If we go above $50 million, we don't want to just scale up heavy duty. At that point -- we recognize that we want to preferentially give additional money to Heavy duty, because I think you've heard that's been kind of relatively underserved -- funded in recent years.
So any amount above $50 million, three-quarters would go to heavy duty, one quarter would go to the light duty equity projects, not CVRP, because we think our allocation for CVRP meets the demand for the year. And at that -- the 75 percent that would continued to go to heavy duty, it would go to those -- continuing to fill those oversubscribed solicitations until we run out of -- until we've funded all the good projects. And then at that point, we'd fund any additional project that has demand.

The 25 percent that would go to the light-duty equity projects would be -- we'd look and see where is the demand, where are we oversubscribed, and that's where we'd preferentially put the money.

So, yes, we do have a plan in place, and perhaps that was a slightly long-winded answer.

BOARD MEMBER FLOREZ: No, actually, that's fine. That's perfect

(Laughter.)

BOARD MEMBER FLOREZ: Let me ask you, the inverse maybe not as long in terms of --

(Laughter.)

AIR POLLUTION SPECIALIST PANSON: Sorry.

BOARD MEMBER FLOREZ: -- if, indeed, what comes from across the way, the legislature and the Governor, is let's say 50 percent less than the $500 million, what's
that process look like? Is that captured as well?

AIR POLLUTION SPECIALIST PANSON: So what we've

done in the plan is we say if we get anything less than
$500 million, we would just scale everything equally
across the Board. If we got 90 percent of the allocation
we'd fund every project. They would just get 90 percent
of the money.

That works for a 10 percent reduction, a 20
percent, maybe 25. Beyond that, some projects just aren't
viable. And so if the number -- we hope it's not so low
that we'd need to go to our second contingency. And the
second contingency is that we would come back to the Board
if the number is significantly different than 500. And we
would ask you for direction, or we'd make a proposal for
how we would reallocate that.

BOARD MEMBER FLOREZ: Right.

AIR POLLUTION SPECIALIST PANSON: So we do have
both ends covered.

BOARD MEMBER FLOREZ: So that leads me to just a
question in terms of if it is significantly lower, and I'm
just wondering what that number looks like? I wasn't here
for the first round where we had a $500 million budget,
and then I believe we were allocated 20 percent, or
something of that sort, you know. And so did that process
mean that -- came back to the Board, the Board then
reprioritized?

    AIR POLLUTION SPECIALIST PANSON: Yes.

    BOARD MEMBER FLOREZ: Okay.

    EXECUTIVE OFFICER COREY: Senator, I'm going to take this.

    If I recall, last fiscal year, I think the budget was the AQIP plan. I think it was a $350 million plan. And the appropriation that ended up playing out was a $90 million appropriation. That wasn't as though all the dollars in the budget were appropriated, just dollars were advanced to the 16-17 fiscal year. So given the significant step down in terms of the appropriation -- and the appropriation was really predicated on a principle of funding those programs that were up and running and maintaining them. That was basically from the administration of the budget.

    We returned to the Board with a proposal in terms of how to allocate that 90 million, had the discussion, and that's how we proceeded. It was a critical enough adjustment that really merited this -- a discussion in this form.

    BOARD MEMBER FLOREZ: And what was the time frame for that? So in other words, this Board must have voted, and then --

    EXECUTIVE OFFICER COREY: It would have voted in
June of last year on the AQIP plan. And what I'm not remembering is when that 90 million appropriation, it was probably in the July or August time frame.

BOARD MEMBER FLOREZ: Did we miss some --

EXECUTIVE OFFICER COREY: And then we would have returned back in September or so.

BOARD MEMBER FLOREZ: Richard, did we miss any sort of official deadline in doing that, or was this a self-imposed deadline today, meaning we have to vote on this $500 million plan?

EXECUTIVE OFFICER COREY: From a planning standing point, from a historical fiscal year standpoint, we always brought the plan to the Board in June, so we can get out the gate with any solicitations and planning and next steps.

BOARD MEMBER FLOREZ: Solicitations are driving this. Okay. Let -- so let me just ask a couple more, and then I want to make a couple comments. In terms of the -- have we ever quantified what we're not funding? So if you look at -- go back to last year's plan and what wasn't funded now carrying over to this year -- and I'm not talking about monetary quantification. I'm talking about true air pollution, climate change issues. You know, when you don't fund something, and if rebates aren't going out the door as planned, is there -- is there anyway you have
a shadow budget, if you will, that gives us some sense of what is on the table, what was left on the table, what's the impact, clean air impact particularly, to communities that isn't just necessarily reflective of the dollars, but we could actually quantify?

MOBILE SOURCE CONTROL DIVISION CHIEF KITOWSKI: I don't believe we've done that specific analysis. We actually could do that fairly straightforward. When we went with the original funding plan, we assumed we were going to get a certain amount of funding, and so we had emission benefits associated with that.

When we came back, we had revised estimates based on what the actually funding was. So the Delta is straightforward. There are certainly opportunities there that are left on the table.

BOARD MEMBER FLOREZ: Yeah, I'm just wondering, Madam Chair, you know, that might be a good document for those folks to consider moving forward, because I think sometimes people just see numbers. They don't see true air impacts, or greenhouse gas impacts, or some of the programs that we're trying to -- you know, the actual impacts, what we're leaving on the table.

So if you looked at last year when it was, you know, de-funded, if you will, or not funded completely, I mean, there was some air quality benefits obviously left
on the table. And now we carry forward a year later, and it would be nice to know, per the recommendations, you know, what that looked like last year, what was left on the table, what it could possibly look like this year, if we got a similar allocation. And I can tell you that I think the folks across the street probably would be very surprised how much we're actually leaving on the table beyond dollars.

And so my last question would probably be on the -- you know, we talked about the equity programs you mentioned, Andrew, a minute ago that, you know, we'd take a proportional cut, at some point, evenly to a point where some programs wouldn't make sense. I'm worried about the equity programs particularly, because those are low numbers. And as you get to proportional, you get down to that program, you wonder maybe we shouldn't do van pools, maybe we shouldn't do ag stuff, maybe we shouldn't do certain things, because under 10 million or 20 million it doesn't make sense.

I'm just wondering if the staff would consider putting a floor that as things are cut, that that stays as is, and other things are cut, so that the equity programs themselves remain in tact, and are not subject to a proportional cut, given that those numbers are so low at the very beginning.
And if you look at some of the ride-sharing programs or things that were cut in the last budget, those were the most -- those are completely gone, and some of the other programs got funded. And I know there wasn't a lot of money there. So maybe, you know, staff can consider just keeping that as a floor, if you will.

So those are my questions. Thank you.

Let me just -- if I could, just say and ask the Board to entertain something or a thought process or staff. I actually think this budget should be $750 million. I think $500 million is doing what we did last year. And I know that it is all contingent upon what folks decide across the street. But -- you know, I guess I, you know, look at it differently. I looked at last year catching up, because I assume what I read is we have about $1.4 billion somewhere. And it seems as though when we are asking for $500 million, we're not going to get more than $500 million. And when we're asking for $500 million this year, we're really not asking for $500 million, because we didn't get last year's allocation either.

So I think -- you know, my thought process would simply be it would seem that we would ask for at least half of what we didn't get last year, and be inclusive of the $500 million for this year. That is catch-up real air
quality benefits in my mind. And I also think that -- and I'm just trying to figure out the process how one might think about that. But just knowing what we're trying to achieve over a longer period than the budget year, the air quality benefits well surpass budget years. They add up every month. Those are the kinds of things that hopefully the Board would continue to do.

I feel a little bit uncomfortable voting on this at such a low number. It's almost as though I'm buying into a low ballpark number, if I consider last year and this year. If I look at statically, I would say the staff has done an awesome job with the numbers that you were given. But if you're sitting from this perspective looking at last year and this year, and then moving into next year, I think we're always going to set the bar at 500 million, and I think we're always somehow going to seem to get much less than that.

And I get if it was funded last year, 500 sounds appropriate. But last year was not 500 million, it was much less. And I think staff did a good job in terms of trying to change that.

The last thing I would simply say is it's an interesting process, and thank you to staff for taking me through it. I really admire the challenges that our Chair
has, and the staff, and Richard, and others, because we're passing an investment plan, and I really appreciate that. But what seems to happen on the other side of the street is that they're passing a disinvestment plan. I mean, it is -- we put something out, and it is like literally we are disinvesting in true air quality benefits. And I think that's the name of the game. And it's why everybody is here, everybody see some benefit.

And as Diane mentioned and Sandy and others, you know, the real issue for us as a Board, I think, is to set the right standard for air quality, pick the right number, if we have oversubscribed programs. I'm not saying break the bank. But again, we are still playing catch-up from last year.

And so my thought about if we have subscribed programs that we can actually fill, school buses seem to be, you know, something that make a ton of sense that everybody is mentioning here. The new programs are fantastic. But I really believe, at some point -- and I know that there's some talk about when this is coming. If we ask for 500, we are really -- my view only, really asking for 250, because last year's allocation, plus this year's allocation is really half of what we need to do to improve the air quality.

So that's really my comments. I would just hope
that when we look at things that are oversubscribed, clean-air buses, you know, the ride-share programs, it could go on forever, all those are very positive programs. It doesn't mean much if we don't actually get those dollars out the door.

And I really appreciate everyone testifying today, but I think the Board needs to think broader and think two years. And as someone mentioned in passing, kind of chuckled, to a three-year budget. That's really how we should be thinking period anywhere when you look at the improvements for air quality.

So I would just leave it at that. Thanks, Madam Chair. Those are my comments.

CHAIR NICHOLS: Okay. Thanks.

Mr. Serna.

BOARD MEMBER SERNA: Thank you, Madam Chair. Boy, that's kind of a tough act to follow.

(Laughter.)

CHAIR NICHOLS: We'll start with you the next time and go the other way.

BOARD MEMBER SERNA: Right. Yeah. So I will certainly add to what my colleagues have mentioned in terms of the great work that staff has performed yet once again. And I want to thank all the speakers that came to testify today.
I don't necessarily disagree with much of what Senator Florez just said. I certainly appreciate the frustration. I think Mr. Magavern's comments earlier about a real focus on explaining, as best we can, or emphasizing, as best we can, to the administration that given the introduction of his six pillars, including a number of initiatives that were mentioned by a number of speakers today, including short-lived climate pollutant reduction, is something that I think has to be part and parcel of this investment plan.

In other words, what I -- I guess what I didn't here clearly articulated during staff's presentation is how, besides just here's our list of -- priority investments, how does that -- how is that going to be reflective of what I believe we didn't have in advance last year, which is kind of this emphasized six-pillar approach that the administration has now communicated pretty clearly.

So I'd like to hear from staff what, if any, plan there is to stay nimble, and be responsive, and to actually use that clearly articulated initiative by the administration to underscore the fact that not only are we playing catch-up, but to not receive full funding again is going to do nothing to advance that last Executive Order. So maybe, Mr. Corey, if you'd like to respond to
that, I'd like to maybe hear your thoughts.

CHAIR NICHOLS: Okay. I think what I need to hear from you then is the response on how this fits with broader strategies, including this idea of how to articulate what the true need is better. I guess I do have to say as a person who reports to the Secretary of CalEPA, and to the Governor directly, that we aren't free to move money around, even though we might wish to.

I wish I had had that experience of being able to say I'd like to make it 750 instead of 500, but we have to do that through the budget process. And so we're not in a position, other than saying what we think the true need is, which we absolutely can do to make it happen.

But we definitely can talk about what the need is, and how that fits with our mandates in terms of cleaning up the air and meeting our climate goals. So I think that suggestion that has just been made is a very helpful one.

I would like you to explain, if you can, we're thinking about not including aviation fuel. Are you thinking it's covered by the Low Carbon Fuel Standard and there's money there? Is it something we could simply open up as an eligible source? I think that would be -- that would be something that would be much welcomed here, and we could certainly fit that into the resolution.
Those are certainly two of the biggies. And I think the other one is this issue about the flexibility with respect to the limit on the -- on the low NOx natural gas engines, just because I didn't hear anyone saying that the idea of a program to just change out engines was something that they thought was going to have a lot of legs.

And even if the number of vehicles might not be as great that we were touching, if arguably we were getting more air quality bang for the buck with getting people new trucks, then we should be open to doing that.

And then again, we wanted to hear some more about the -- about the role of the local air districts in implementing these programs.

So if you want to just take those points, I don't know if, Richard, you want to orchestrate this, or, Jack, you want to take the lead, or how you want to do that?

EXECUTIVE OFFICER COREY: How about this -- I think they're -- I'm going to have Jack fill it -- well, I'm going to cover a few points. I want to cover the connectedness question, in terms of the relationship to the pillars, Supervisor Serna raised, as well as the CAPCOA question. I think it's a really important one. And then the alt fuels. And then Jack was keeping careful notes, and I think he will -- he will bat clean-up.
CHAIR NICHOLS: Okay.

EXECUTIVE OFFICER COREY: So, Supervisor, so in terms of the connectedness, in fact, I was thinking it was occurring to me when I was listening to the conversation about one element, which is the short-lived climate pollutant plan. I think someone made the point that there was there no -- not a single reference. I've not validated that point. I didn't do an on-line search.

But the fact that the question was raised, to me, underscored a point. And as I think about this plan, I -- and I think about the process that we went through to develop it, and this is over many, many months. And clearly, that's reflected in the comments and the broad spectrum of stakeholders that are at this hearing, and the perspective that they share, which I think is generally support for the process they went through, and the balance.

And when I talk about balance, there's a few elements. If I look at these strategies, many of them are short-lived climate pollutant strategies, are strategies to reduce consumption of petroleum, are strategies that will yield further reductions of NOx, are strategies that will reduce black carbon emissions, which is not only a toxic pollutant from diesel combustion, but also a strong climate forcer.
At what occurred to me though was the need to be much clearer on those linkages between these packages of projects and how they link to the overall pillars and our SIP that will be being brought to the Board later this year, the short-lived climate pollutant plan, as well as sustainable freight plan. I think there's a strong linkage. In fact, I'm convinced of that.

But I think from a clarity standpoint, we're going to have to strengthen those -- that association and be clear on how those pieces fit together. That would --

BOARD MEMBER SERNA: Can I respectfully suggest that if we do -- if we are forced to come back to consider the first contingency, the second contingency, that perhaps we have at least one slide or maybe a couple that actually clearly show that a little bit more so than what we saw today?

EXECUTIVE OFFICER COREY: Understood. No, I think that's a fair request.

BOARD MEMBER SERNA: Thank you.

EXECUTIVE OFFICER COREY: The comment that -- and the Chair added to this, and it -- so it's just a suggestion to consider, to Senator Florez's point about we need more money, we do. There's no doubt. And we will be -- we are crystal clear on that need, and I think the
stakeholders that appeared here do.

One suggestion would be perhaps a consideration on the part of the Board the addition of a provision in the resolution recognizing, hey, this is a $500,000,000 plan, but we do need more money, and to take all actions. Now, I'm being a little general on this, because I think all actions are conversations many of you are in a position to have, some which we are, but to be crystal clear that more money is needed, and those additional steps ought to be taken.

It's on record. It's reflected in a resolution along those lines, if they were entertained, could be useful. I think it could be helpful.

CHAIR NICHOLS: So here's a thought. If we're going to talk about a contingency plan, couldn't we do an upward contingency plan, to show what we'd be able to do if we had twice as much money?

EXECUTIVE OFFICER COREY: Yes.

CHAIR NICHOLS: Okay. I think that would be a way to do it.

EXECUTIVE OFFICER COREY: Two more points.

Aviation fuel. We've been very encouraged on the Low Carbon Fuel Standard the fact that many of the -- several of which are represented here today, their interest in participating in a Low Carbon Fuel Standard. Different
ways to participate. The fact of the matter is we're engaged in serious conversations with that industry and are beginning to work through what would amendments to the regulation look like down the road.

We actually think this is a -- that there is -- they're there. We think this is a viable opportunity, and one that we are working with them on. What I'm less clear on is the timetable for those amendments. But I'm telling you, that I expect to return to this Board with proposed amendments to the Low Carbon Fuel Standard that folds in the aviation element.

And there's really a relationship between that, because that requires pathways to be developed, and leads to a linkage, association between the proposal that what discussed here for the low carbon transportation fuels. Our read is that it allows for aviation to be captured. We'd need to monetize -- or have a carbon intensity for it. That's the currency.

But in other words, the proposal for low carbon fuels, as proposed in this AQIP plan, can already capture and recognize.

CHAIR NICHOLS: You think it does already include that?

EXECUTIVE OFFICER COREY: We need a carbon intensity. We need a pathway.
CHAIR NICHOLS: Okay.

EXECUTIVE OFFICER COREY: But in terms of from a -- from a process standpoint, it allows for it. And if I'm wrong on that, I need someone to correct me. I think I --

CHAIR NICHOLS: No. You've got nodding behind you. I can see the people behind you.

(Laughter.)

EXECUTIVE OFFICER COREY: And the last thing that I wanted to cover, then Jack has got a few additional points, is on CAPCOA. And as someone who's been her for a few decades, that relationship wasn't always as good as it needed to be. The fact is, and I think our CAPCOA partners would attest to this, I think our working relationship is as good as it's ever been.

And the fact is it really needs to be, because if we've ever had a challenge from a criteria pollutant side, from a toxics pollutant side, and as well as the partnering that we're doing on GHGs, it's now, and it's more than money. It's how do we work to get more effective administratively, process-wise, the partnerships that we're establishing through Enforcement you'll be hearing about.

So -- and what I'm not proposing, because I just need to have the follow-on conversation with the CAPCOA
Board, and Alan, and the commitment I'm making is to sit
down with Alan, the CAPCOA Board, and really talk process.
Where there are administrative opportunities to capitalize
on their strengths, the processes in place -- that they
already have in place. So, you know, I heard the South
Coast representative, I heard Alan's comments, and I don't
know what that building on the relationship looks like
from a AQIP standpoint, but the commitment is there to
work through that process.

CHAIR NICHOLS: Well, I thought what was
particularly interesting, or at least it triggered
something in my mind, the Air Resources Board, because we
are perceived as, you know, having a lot of authority and
power to affect lives and many different industries, we're
always being asked for more accountability, for more
transparency. And the legislature often is saying that
they want to have more oversight over how the money is
being spent, and making sure that the money that we are
expending is achieving results.

This is one area where I feel we could benefit
from utilizing the resources of the local air districts,
where they could take on a stronger role as partners in
this program in documenting the actual expenditures in the
programs, and holding each other accountable in terms of
going the funds out the door, so that they can -- you
know, they would have to then compare and contrast, you
know, how they were doing in terms of the achievements
that they were getting from these funds.

So this is not all just, you know, getting money
and being able to do more. It's about really being able
to work together to establish the standards for review and
the ability to be able to make the most robust possible
assessment of what's working, and to the extent that it's
not, what isn't working, as we look at these programs on
an annual basis. I think we would all benefit from that.

VICE CHAIR BERG: And Chair Nichols, just looking
at what the Advisory Committee used to do, many of these
places -- many of these things are in place. I think it's
a matter of gathering the data. And so it might be a good
time to look at maybe reinstating the Advisory Committee
to get people back in a room. Because every time we do,
we really do come out with very good things.

CHAIR NICHOLS: Great.

EXECUTIVE OFFICER COREY: Very good. I got some
clear direction on that.

CHAIR NICHOLS: I hear -- ready to do that.

Okay. So can we now move to the actual
resolution and a vote, because it's a little past noon,
and I think this would be a good time to take a break,
once we finish our work here.
Yes, Ms. Takvorian.

BOARD MEMBER TAKVORIAN: Can I just ask one other question.

CHAIR NICHOLS: Okay. Sure.

BOARD MEMBER TAKVORIAN: I didn't hear a response about the school buses and --

CHAIR NICHOLS: Oh, the school buses. Yes, you're right.

BOARD MEMBER TAKVORIAN: So the questions are --

CHAIR NICHOLS: What does it take?

BOARD MEMBER TAKVORIAN: -- how many are there, what does it take, what's the cost? And then the second I think would be on the proportional or non-proportional reduction, I think you're asking for this, is what is the -- what do the upward and downward scenarios look like?

CHAIR NICHOLS: Yeah.

MOBILE SOURCE CONTROL DIVISION CHIEF KITOWSKI:

So let me -- let me talk a little bit about school bus, the value of 3,500 buses -- a number of 3,500 buses was put out there. And as I said in the short response before is there are different sort of levels of dirtier school buses. And the very oldest, the ones that pre-date safety standards, the pre-77s, we've done an effective job of eliminating those. There's pre-87s that
are higher emission levels, and they're uncontrolled, but meet safety standards. And then there are school buses that have some controls on them, but are still so old we couldn't put a particulate filter on them.

If you include all three of those categories, that is the 3,500 number in the State. It's an accurate number. To replace all of those would take somewhere in the 400 to 500 million dollar range. So a fairly significant amount of funding.

I will point out a couple of things that I think are important to note. The Agency has had a strong emphasis on school buses over the years. More than $300 million has already gone to get us where we are today to reduce that number down to 3,500. So in some ways, that is a success sorry.

But maybe this Board -- also wanted to make sure the Board was aware, in January, and we were able to do this with Executive Officer approval, the -- we have changed the Carl Moyer Program. And the Carl Moyer Program has traditionally not been a good fit to fund school buses, because it's based entirely on cost effectiveness, and school buses don't drive enough miles to really register all that high on cost effectiveness.

But recent legislative flexibility gave us the ability to do that. School buses were such a priority
that we jumped ahead of the process we were doing and put in place special cost effectiveness limits, much higher cost effectiveness limits. So now, the Carl Moyer Program and local district 923 funds, the DMV funds, can be used to help in this process to help sort of bring down that number.

So we've got -- you know, we do look at it in a couple different ways. We do have some areas in process. This funding plan is, you know, $10 million, and that is a piece, but holistically we are looking at broader ways to tackle it.

CHAIR NICHOLS: Well, can I make a suggestion on this one, because I think -- there were more than two of us who thought that this was an area where we really needed to focus some more attention. I'd like to ask the staff to come back with a plan for addressing the full scope of this problem. You can do it in tranches, so you get the pre-1977s first and then the pre-1987s, and looking at all the potential sources of funding, including this one that we're dealing with right now, but also the enforcement money, the Moyer money, whatever.

I want to say, within the next two years, some very substantial progress getting that 3,500 number cut. I don't know where it's going to -- how to get it to, but I mean our goal should really be to not have any school
buses out there that are over a safe limit for kids to be exposed to.

And that can't take decades, because those particular kids are going to, by that time, be adults, and not even riding the school bus. So let's see what we can do to come up with a shorter term focused effort that just deals with the buses.

But, you know, as part of your effort to do the contingency a plan, up or down, I certainly think that this -- putting more money into this program would be one of the things you ought to be -- you ought to be looking at.

EXECUTIVE OFFICER COREY: We got it. We'll work on that plan.

DEPUTY EXECUTIVE OFFICER AYALA: And if I can just point out, as Chair Nichols mentioned, in the next item, after we come back from lunch, you're going to hear, as part of the enforcement program presentation, a discussion about supplemental environmental projects. And one of the priorities in that program is indeed school buses. So you're going to have an opportunity to hear and get an update in terms of where we currently are with respect to the enforcement program. But we can certainly come back and put it all in a complete package, so that we can go through the numbers and the overall plan.
CHAIR NICHOLS: I think that would be really helpful.

Yes, Dr. Sherriffs.

BOARD MEMBER SHERRIFFS: I hate to harp on ag waste, but is -- how soon are those biofuel facilities likely to impact the problem of disposal of ag waste.

MOBILE SOURCE CONTROL DIVISION CHIEF KITOWSKI:

Well, let me jump in and talk about that a little bit. Part of this is sort of an economic -- I mean, it's largely an economic question. And what we're providing this year is a per gallon substitute in our fuel program in biofuel, and those facilities would be eligible.

What we have pushed all along, especially for the fuel program and a few others, that they really need continuous funding. What we're trying to do is promote in-state production, and folks can look at the amount of funding we can provide in one year with the per gallon subsidy, but then they have to make an estimation and a guess on the likelihood of being able to get that the next year, and the next year after that, because you're not going to invest in upgrading facilities if you think it's just a one-year pot of funding.

So I think every facility is going to be making individual choices. What we expect this first year, quite honestly, is that those with existing facilities will use
that to expand production up to their current capabilities, and we'll get that expansion out of the program, but we need to be able to convey a stronger sense of continuous funding and a source to truly make a big difference in getting facilities like that to invest in this area.

BOARD MEMBER SHERRIFFS: And do we have any kind of rough estimate of what we hope that expansion might represent, 10 percent, 20 percent, five percent?

MOBILE SOURCE CONTROL DIVISION CHIEF KITOWSKI: I'm sorry, I don't.

CHAIR NICHOLS: All right. Are we ready to have a --

VICE CHAIR BERG: Chair, I'd like to move on -- I'd like to move the motion with the amendment to the resolution that we would include in the resolution Mr. Corey's language to increase the funding to 750,000 to a $1,000,000, what we would do with the additional funding.

CHAIR NICHOLS: You 750 million. We're talking millions.

VICE CHAIR BERG: I'm sorry, 750,000 to a million. You said double it.

What we have now is 500 million?

BOARD MEMBER FLOREZ: 500 hundred to 750 million.

VICE CHAIR BERG: Million. So I'm saying 50
million to a billion. Sorry. I got my numbers confused. 
750 -- and then you have real money, right? 750 million 
to a billion, what we would do with that funding. So as 
you laid out, Mr. Corey. And so I move that.

CHAIR NICHOLS: Do we have a second?
BOARD MEMBER RIORDAN: Second.
CHAIR NICHOLS: I will call for a vote then.
All --
BOARD MEMBER MITCHELL: Madam Chair?
CHAIR NICHOLS: Yes.
BOARD MEMBER MITCHELL: Do we want to also 
include in the resolution that aviation fuel would be 
included in the low NOx standard or did we not want to do 
that.
CHAIR NICHOLS: I'm sorry, what was it?
BOARD MEMBER MITCHELL: That we would include 
aviation fuel.
CHAIR NICHOLS: Oh, we -- I believe we heard that 
aviation fuel is included --
BOARD MEMBER MITCHELL: It is included. Okay.

We don't need to --
CHAIR NICHOLS: -- and doesn't require an 

amendment, so --
BOARD MEMBER MITCHELL: -- include it in the 

resolution. All right.
CHAIR NICHOLS: That's -- so I was satisfied with that.

Yes.

BOARD MEMBER FLOREZ: We're on a roll and I don't want to throw us back to --

(Laughter.)

CHAIR NICHOLS: I'm driving us to a vote.

BOARD MEMBER FLOREZ: You know how that goes, but I also don't want to miss something. Madam Chair, I'll follow your lead and staff's lead on the proportional cut to equity programs being exempted from the proportional cuts, given it is a low number at this point in time.

CHAIR NICHOLS: I think what I heard, but let me just restate it is that the -- is that if it was more than what we could say is a nominal or small reduction, that the staff will come back with a reprioritized list. And although I'm not sure that they said this, but I hope they heard it, that they would look at holding the projects that are targeted towards the disadvantaged communities, and low-income people, that those would be held harmless in that situation. That's the -- that would be the overarching goal.

VICE CHAIR BERG: And so what I heard on that is if we were cut, up to about 20 percent. If we're cut greater than 20 percent, they'll just come back to the
CHAIR NICHOLS: Yeah, I think that's right, that they would come back at that point.

All right. Yes, Andrew.

AIR POLLUTION SPECIALIST PANSON: So specifying that we would have to come back with less than 20 percent, that has to go into the resolution. So just --

CHAIR NICHOLS: All right. So that will be -- without any objection, the maker of the motion is going to add that to her resolution.

AIR POLLUTION SPECIALIST PANSON: Oh, and then sorry --

VICE CHAIR BERG: So I --

AIR POLLUTION SPECIALIST PANSON: -- one more question. If you want to -- if we scale down from a zero percent reduction to 20 percent, if you want to hold the equity projects unchanged, that also has to go into the resolution, because that's not how we wrote it. So if you want to say, you know, when we do the scaling, we wouldn't scale the equity, that's --

CHAIR NICHOLS: That was the intent. That's what I just meant.

AIR POLLUTION SPECIALIST PANSON: Yes. Okay.

Sorry. I just --

EXECUTIVE OFFICER COREY: That's what I
understood.

CHAIR NICHOLS: That's what the amendment would be.

AIR POLLUTION SPECIALIST PANSON: Got it.

BOARD MEMBER TAKVORIAN: And just since we're clarifying, so I really appreciate how you articulated the bus plan, should that go in the resolution as well?

CHAIR NICHOLS: I think that's just a separate direction from the Board, as opposed to being part of the resolution on this funding plan.

BOARD MEMBER TAKVORIAN: Okay. So there's no opportunity for this plan to be modified to include more -- because I was hoping that that plan would have an impact here.

CHAIR NICHOLS: I don't think it would come in time to do that, because we're ready to start operating under this plan as soon as it gets approved. Whereas, the bus plan, I think, is going to take us at least a few months in meetings to get together.

BOARD MEMBER TAKVORIAN: So is that a separate resolution

CHAIR NICHOLS: So it could be part of the scaling up.

BOARD MEMBER TAKVORIAN: Well, there you go. And would that need to go into the resolution then?
EXECUTIVE OFFICER COREY: A commitment. I got clear direction to develop that plan, and it's clear to us that we need to begin work on it. We'll be returning to the Board. So as you characterized, Chair, I think that's several months, because it includes a few things. One, the scope of the problem, two what are the range of pots even those that we have authority over versus others to put the whole picture together. What is the need, what are the opportunities, what is the gap, and what are the strategies for getting there? It's going to take us a few months to pull together.

CHAIR NICHOLS: Okay. All right. Any other clarifying questions or comments?

If not, then let's go ahead and we'll just do this with a general voice vote.

All those in favor of the resolution as amended please say aye?

(Unanimous aye vote.)

CHAIR NICHOLS: Opposed?

Abstentions?

All right. It's done. Thank you very much.

Good work.

And we will now break for lunch. And let's try to be back here at 1:15.

(Off record: 12:15 p.m.)
(Thereupon a lunch break was taken.)
AFTERNOON SESSION

(On record: 1:24 p.m.)

CHAIR NICHOLS: Good afternoon. We're going to go ahead and get started. Chairman Nichols is just around the corner. She'll be joining us. We're going to start with Agenda Item 16-6-3. And next, the Board will hear an update from our Enforcement Division. The Enforcement Division's annual report summarizes the results of action taken by the Enforcement Division in 2015 and highlights some of the key priorities and actions for the Division in the coming year.

There's no question that the Enforcement Division plays a critical role in regulation, not only between us as the Board and passing regulation, but also for the stakeholders.

So, Mr. Corey, would you please introduce this item.

EXECUTIVE OFFICER COREY: Yes. Thank you, Vice Chair Berg.

For years, the Enforcement Division posted its annual report. This year, we're starting what I plan to be annual updates to the Board from the Enforcement Division. The retirement of the former Enforcement Division Chief led to the hiring of Dr. Todd Sax in June of 2015. I reported on that at the beginning of this
Todd's background includes expertise in inventory, modeling, and trucks, and is already helping to strengthen our program. The annual enforcement report results demonstrate how the Enforcement Division works to ensure that the regulations adopted by this Board deliver the emission reductions needed to achieve California's clean air and greenhouse gas reduction goals.

Today's presentation provides an overview of the Enforcement Division and its approach to achieving compliance with ARB's regulations, including the specific actions that Todd and his team are taking to improve the process.

Now, I'd like to introduce Shannon Downey who will begin the staff presentation.

Shannon.

(Thereupon an overhead presentation was presented as follows.)

AIR RESOURCES ENGINEER DOWNEY: Thank you, Mr. Corey.

Good afternoon, members of the Board. Today's presentation will provide an overview of the Enforcement Division's annual report, which discusses both the Division's accomplishments in 2015 and our priorities for the future.
While the majority of regulated industry meets regulatory requirements, some do not. ARB has a strong and active enforcement program, which conducts outreach, inspects vehicles and equipment, investigates companies to bring them into compliance, and ensures a level playing field for those that we regulate. Our efforts are evolving.

This presentation highlights the results of that work in 2015.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: In addition to providing an overview of the annual report, I will provide an overview of the programs we enforce. I will then move on to a more in-depth discussion of important program areas sharing with you our accomplishments in 2015.

Finally, I will lay out our approach for addressing key challenges that we see in these areas.

Now, I will provide an introduction to our enforcement programs.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: The Enforcement Division is responsible for enforcing most of ARB's regulatory programs with an emphasis on vehicle, engine, and parts certification; enforce rules related to diesel and goods movement; fuels; stationary sources; and,
AIR RESOURCES ENGINEER DOWNEY: Our goal is to ensure that compliance with the agency's rules and regulations is broadly achieved in order to protect the health of all Californians. We work to achieve this goal by administering fair, consistent, and comprehensive enforcement to the regulated community.

AIR RESOURCES ENGINEER DOWNEY: Enforcement Division has a staff of 136 scientists, engineers, field inspectors, and administrators. The Division also employs over 40 part-time staff, who provide additional support for program implementation. We provide training and compliance assistance to help fleets meet requirements. We identify noncompliance and enforce rules. We work with other divisions to identify likely violators. We conduct field inspections of vehicles and sample and analyze products. We also receive tips from industry and complaints from the public.

More recently, we are expanding into more sophisticated data mining techniques. No matter how we identify cases, our goal is to resolve each violation.

AIR RESOURCES ENGINEER DOWNEY: We work to bring
each violator into compliance. We settle the vast
majority of our enforcement cases through the mutual
settlement process. Infrequently, when we're unable to
reach a settlement with the violator, we work closely with
our Legal Office to refer the case to the California
Attorney General, or district attorney, for litigation.

The case is closed when the violator has met
compliance requirements and pays a penalty for
noncompliance.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Penalties serve
two purposes: To deter future noncompliance, both from
the violating business itself, and more broadly the
industry in general, and to level the playing field by
removing any profit gained from noncompliance. Penalties
must be significant enough to address the nature of the
violations, and the resulting harm to public health.

They must also recognize the actions taken by the
violator to return to compliance. We pay particular
attention to the financial impact our penalties impose on
the violator. Our goal is to achieve fair, comprehensive,
and efficient compliance, not drive companies out of
business.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Violators may be
eligible to participate in a Supplemental Environmental Project, or SEP. SEPs are environmentally beneficial projects that a violator agrees to contribute part of their penalty amount to as part of a settlement. ARB currently has three SEPs into which violators may choose to pay up to 25 percent of their penalty.

These include: The diesel school bus emission reduction SEP, which provides funding for school districts to retrofit or replace their diesel school buses or trucks; the California Council on Diesel Education and Technology SEP, which supports training programs for diesel mechanics at six community colleges across the State, which helps ensure diesel engines and their emissions control system are well-maintained by an educated workforce; The Small Engine Maintenance and Repair SEP provides training to maintain and repair small off-road engines.

In 2015, more than $1.6 million were diverted to these programs. In late 2015, the Governor signed AB 1071. AB 1071 requires ARB to revise its SEP policy to allow violators to pay up to 50 percent of their penalty to an eligible SEP with a focus on increasing the availability of SEPs in disadvantaged communities. Staff is currently developing a revised SEP policy.

--o0o--
AIR RESOURCES ENGINEER DOWNEY: 2015 was a successful year. We received and resolved nearly 12,000 complaints, issued almost 13,000 registrations for portable equipment, and trained over 6,000 people. Staff conducted more than 32,000 inspections, issued more than 4,400 citations, and closed 440 investigations.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Those cases and citations resulted in penalties totaling more than $34 million.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: I will now discuss some of our programs in more detail starting with diesel fleet regulations.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: The Division enforces in-use requirements on many types of equipment, including trucks, ships, and off-road equipment, in addition to the fuels they use.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Our enforcement efforts are focused on three major activities: Inspections, investigations, and outreach to disadvantaged communities.

--o0o--
AIR RESOURCES ENGINEER DOWNEY: One of our primary functions is to enforce diesel regulations in the field. Our inspectors work in conjunction with the California Highway Patrol to inspect trucks and buses operating on California's roadways to ensure compliance with ARB's diesel regulations.

Our staff also inspects ships, transportation refrigeration units, cargo handling equipment, and many other sources. Citations are issued for non-compliance.

Over the last few years, the number of citations we issue has increased. Compared to 2014, we issued 35 percent more truck citations in the field. This increase in citations issued is likely due to our increased presence in disadvantaged communities, as well as the growing number of trucks and buses with compliance requirements under ARB regulations.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Using the media is an important part of our approach to enforcement. In 2015, we held four media events in Stockton, Boyle Heights, the Inland Empire, and Pacoima. This work is continuing in 2016. Our goal is to get the word out that ARB is enforcing diesel regulations. When the regulated community understands we are enforcing, they are more likely to take the actions necessary to comply.
In 2015, as a result of our media efforts, 14 articles were published in print, the Internet, and television, including five in Spanish and two in Mandarin. Here's a recent video from last week describing our field enforcement efforts in Fresno.

(Thereupon a video was played.)

"MR. TAVIANINI: My name is Mark Tavianini with the California Air Resources Board. We're out here today conducting inspections of heavy-duty vehicles for compliance with air emissions rules. We pulled the vehicles over, take a look at the exhaust, take a look at the engines to see if they are compliant with the Air Resources Board's rules for our truck and bus regulation, and we look for tampering with the engines. Those are pretty much the kinds of things that we inspect for.

If we find violations, we will issue a citation. Those carry penalties and the vehicles need to be brought into compliance after that. And we're doing this because we know the air quality in valley is pretty poor. Diesel vehicles and freight transport is a big part of that problem, and we are trying to get a handle on that by making sure that we clean up the truck fleet, so that we get newer and newer engines'. That's what we're doing".

(Thereupon the video concluded.)
AIR RESOURCES ENGINEER DOWNEY: Staff conducts investigations at ports focusing on ships, cargo handling equipment, harbor craft and other sources. In 2015, staff settled 34 cases for $477,187. Two example settlements are listed on this slide.

AIR RESOURCES ENGINEER DOWNEY: In addition, to individual vehicle and equipment inspections, we also investigate entire truck fleets for compliance with in-use diesel regulations, such as truck and bus, drayage, and specialized fleet rules. This approach was successful. In 2015, we settled 187 cases with assessed penalties totaling slightly more than $4 million.

This slide highlights two of the larger cases we settled, including a case settled with an out-of-state fleet operator.

AIR RESOURCES ENGINEER DOWNEY: While penalties can be substantial for large truck and bus fleets with significant violations, the median penalty taken in 2015 was approximately $7,700. In 2015, the average time it took staff to take a case from initiating an audit to settlement was 13 months. Historically, we selected fleets to investigate based on complaints from the
community or tips from businesses who made the investments needed to comply.

And while in 70 percent of the cases we investigated, we identified violations and settled the case, we also investigated 84 fleets that were ultimately found to be compliant. As a result, in addition to responding to tips and complaints, we have also been exploring opportunities to prioritize the truck and bus fleets we investigate.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: You may recall we introduced the smart audit approach to you in January. The smart audit approach adds a data-driven component, prioritizing the investigation of fleets with the highest potential of noncompliance first.

The smart audit approach involves the merging of multiple data sources, including vehicle registrations, into one database. We've made much progress since our last report. Every fleet operating in California, regardless of state of registration, is subject to the smart audit approach.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Through the smart audit process, fleets are evaluated using multiple audit indicators, such as potentially noncompliant trucks, and
number of citations issued. Fleets with the highest audit score are ranked and then prioritized for investigation.

This table shows actual results of the current smart audit criteria. Investigations must still be conducted to verify a fleet is, in fact, in violation. However, with the new smart audit process, we now have a list of trucks in each fleet which should reduce the length of time necessary for each investigation.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: In early 2014, ARB assessed the compliance rate for the truck and bus rule. At that time, staff found 85 percent compliance. Using a consistent methodology with January 2016 data, we believe the statewide compliance rate for heavy trucks to be between 70 and 75 percent. The compliance rate is lower than in 2014, and this presents a challenge.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: To address this challenge, we are looking at a number of opportunities to increase our effectiveness. We are now prioritizing investigations focusing on the worst offenders first. We are working on procedures to accelerate the time it takes to bring fleets into compliance by streamlining our case management process.

We are also focusing on brokers. Brokers are
businesses that dispatch trucks on behalf of their clients. ARB regulations require brokers to hire compliant fleets.

Finally, we are focusing our efforts in areas that need it most, disadvantaged communities.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: In 2015, we set a goal that more than 50 percent of all diesel field inspections would occur in disadvantaged communities. We exceeded this goal, achieving 64 percent of our inspections in disadvantaged communities.

To further address community concerns, in 2015, we formed a six-member team to focus on disadvantaged communities in specific areas of the state, the Los Angeles region, Imperial Valley, the San Francisco Bay area, San Diego, the greater Sacramento area, and the San Joaquin Valley. Within these regions, the assigned team member attends community meetings to stay informed of their issues and focus enforcement efforts within each community. These staff also work to identify locations where trucks illegally idle and provide "No Idling" signs for installation.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: I will now discuss our enforcement of certification programs focused
on vehicles, engines, and aftermarket parts.

---o0o---

AIR RESOURCES ENGINEER DOWNEY: To ensure that new vehicles sold into California are as clean as possible, the Enforcement Division works to ensure that automakers comply with State laws. New vehicles and engines sold in California are required to be certified to emission standards and to remain durable so that the emissions remain low over the life of the vehicle.

Similarly, manufacturers of aftermarket performance and repair parts must demonstrate that their products do not adversely impact emissions or emission control systems on certified vehicles in order to be sold in California.

---o0o---

AIR RESOURCES ENGINEER DOWNEY: Manufacturers of add-on and modified parts, such as catalytic converters, turbo chargers, computer devices, and exhaust systems must demonstrate that the use of their products doesn't result in increased emissions. State law exempts parts used in dedicated race or competition vehicles from these requirements.

---o0o---

AIR RESOURCES ENGINEER DOWNEY: The prevalence of racing aftermarket parts exceeds true racing demand and
the market is growing. These parts are not certified or approved by ARB, and often remove, or render inoperable an emission control device. The products are legal and covered by statutory exemption if used on a competition vehicle in legitimate racing applications.

However, their use in certified vehicles and non-racing applications is not legal and results in significantly increased emissions.

In 2011, ARB formed a new section to prioritize enforcement of the aftermarket parts sector.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Since 2011, we have increased our focus on illegal aftermarket parts cases causing a significant increase in the number of settlements in the recent years. We have assessed over $6 million in penalties, including $2 million in 2015.

These cases are having a significant impact in the industry, elevating awareness, and deterring future violations.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: We also focus on new vehicles certified and sold in California. The Volkswagen case is the latest example. I want to make a point to highlight the important role ARB's El Monte staff played in this case. Late last year, as a result of
staff's investigation, Volkswagen executives admitted to installing defeat devices on their diesel cars.

We are currently working with the United States EPA, United States Department of Justice, the California Office of the Attorney General, and Volkswagen to settle these violations. On April 21st, Judge Charles Breyer in the United States District Court in San Francisco announced that Volkswagen and government agencies had reached an agreement in principle to address Volkswagen's 2.0 liter vehicles.

While we cannot provide additional details at this time, we expect more information will become publicly available on June 28th. We'll be providing more information to the Board and to the public at that time.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: The automotive and parts industries are highly competitive. When a company makes a decision to sell racing parts in non-racing applications or to install defeat devices in their vehicles, they do so to gain a competitive advantage in the market.

Left unchecked, these violations create a market incentive for others to cheat, which undermines our regulatory program. Enforcement actions against individual companies send a powerful message to the
industry that they must meet regulatory requirements. However, when noncompliance is more widespread, additional actions are necessary.

ARB is now investigating every light-duty diesel automobile manufacturer and is working to determine better ways of limiting the sale and purchase of racing parts to consumers for competition only. In the meantime, there are lessons to be learned from Volkswagen and the aftermarkets parts industry. Both regulatory program and enforcement staff are working to develop and implement improvements to the certification process, in-use testing programs, and enforcement efforts to further deter these types of violations in the future.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Now, I will discuss our district support programs and enforcement of greenhouse gas early actions.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: One of the major responsibilities of the Enforcement Division is to provide support to the enforcement efforts of local air districts. To provide this support, Enforcement Division staff works closely with California's air districts and the California Air Pollution Control Officers Association, or CAPCOA, assisting with the resolution of more challenging local
enforcement cases, and providing technical support when needed.

Staff provides training, enforcement support, and implements a registration program for portable equipment.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Our district support program provides specialized expertise to assist air districts in addressing complex or challenging local enforcement cases. ARB also has an oversight role in air district enforcement programs. Our staff provides oversight and training to California's air district hearing boards.

Hearing boards are empowered to grant temporary relief from local air pollution requirements to address temporary process upsets or unforeseen circumstances.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Our training program supports air districts by offering uniform training to air district and industry staff. In 2015, we enrolled nearly 6,500 students 169 classes.

These classes were offered on-line, in class, and in the field. One of our most well attended classes, Visual Emission Evaluation, trains inspectors and the regulated community to accurately evaluate smoke plumes. This is very important, because there are more than 40,000
stationary source permits issue statewide that have opacity standards in them, which can only be enforced by visual emission certified inspectors. In 2015, we began offering this certification to community members.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Another area where the Enforcement Division supports local air districts is through the Portable Equipment Registration Program, or PERP. The PERP regulation was adopted in 1997 to allow portable engine and equipment owners the option of operating their equipment statewide with a single ARB registration, rather than obtaining a permit in each district where the equipment is operated.

In 2015, we processed nearly 13,000 registrations or renewals. This volume is similar to the number of stationary source permits issued at many large air districts across the state.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: The Division also enforces greenhouse gas early actions adopted by the Board. The first programs to be enforced have been stationary source oriented measures focusing on refrigerant management, gas insulated switchgear, and landfills.

The violations of ARB's cap and trade and
mandatory greenhouse gas reporting regulations are enforced directly by ARB's legal team and are not discussed here.

This table highlights the number of cases we have settled and the penalties we have assessed to ensure that compliance with the early action programs the Division currently enforces. The landfill methane control regulation is primarily enforced by California's air districts. The districts enforce ARB's requirements concurrently with federal and local volatile organic compound emission control regulations applicable to landfills. Enforcement Division staff provides training and enforcement support to air district staff when needed.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Finally, I will discuss our actions currently underway to address the challenges we have discussed.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: Looking ahead, we are working to understand compliance rates in major regulations we enforce and to improve the enforceability of future regulations. We are working to become more efficient in how we investigate diesel fleets, and to focus our efforts in ports, railyards, and on high emitting trucks.
We are working to address defeat devices in vehicles and aftermarket parts and we are expanding enforcement efforts in programs like shore power, the Low Carbon Fuel Standard, and the tractor trailer greenhouse gas rule.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: As you've seen, Enforcement Division has accomplished a lot in the past year and our workload is growing. External partnerships are helping to expand enforcement resources. For example, in 2015, we expanded our partnership with the San Diego County Air Pollution Control District. San Diego County staff now conduct inspections on our behalf at CHP scales and cold storage facilities along the U.S.-Mexican border.

However, external partnerships and internal efficiencies are only part of the solution. For the past year, we have been working with ARB's Office of Information Systems to develop and investigation management system. This system will help the Division manage and standardize case loads across programs and staff.

Through this system, we will improve our ability to manage staff, and case work, redeploy staff on emerging priorities, and support future resource needs assessments.

--o0o--
AIR RESOURCES ENGINEER DOWNEY: We have two future Board items scheduled for your consideration. Late this year, we anticipate bringing you an updated policy on the implementation of supplemental environmental projects, to meet AB 1071 requirements. In addition to the updated policy, we will be presenting a list of potential projects to be funded and a description of the mechanism for funding.

In the spring of 2017, we anticipate bringing regulatory updates to the Portable Equipment Registration Program and associated Air Toxics Control Measure for your consideration.

--o0o--

AIR RESOURCES ENGINEER DOWNEY: This concludes the presentation. Our annual report is posted on-line and provides additional detail about the topics we have discussed today. We appreciate the opportunity to present to you today and will answer any questions you may have.

Thank you.

CHAIR NICHOLS: Any questions?

I just have a comment really. I want to say that I think this is the best report yet. So we're building on success. The reorganization work that you all have done and the focusing on highest priorities and just overall doing what I think is probably the most critical thing
about an enforcement program was just making sure that it is visible, but also that it is -- we're focusing on the right things, on the big things, and that we're proceeding in an active way is absolutely essential to the credibility of the overall program.

I think, you know, the legal staff has, I know, worked with you closely to -- and others to make sure that our regulations, as we go forward, are enforceable. Whenever we come up with a situation, as we have occasionally, Where we have a regulation that we're trying to enforce and perhaps not have done it in a while, and suddenly we find out that there were some real issues about whether it was enforceable, that is a -- that is a waste of resources and not a good situation. So I think this is all moving in the right direction, and I just really want to commend you for it.

I see that a couple people want to speak. First, John Eisenhut.

BOARD MEMBER EISENHUT: Yeah. Thank you. Your next to the last slide, can you expand on portable equipment and what that might look like?

ENFORCEMENT DIVISION CHIEF SAX: I can, yes. Portable equipment are larger diesel engines. They can be used as -- sorry, let me move it a little further away. They can be used as chippers or power
generators. They are typically on trailers, so they can pulled by trucks, but they're not self-propelled, so they're their own category.

Because they can be operated anywhere in the State, we have a registration program that allows the vehicles to be registered through the State rather than each local air district where they operate.

And one of the issues that we ran into is that there were fleet average requirements in the Air Toxics Control Measure for that rule, and they were coming due in 2017. And because of some issues with regards to engine and retrofit availability for those engines, we do not believe that the majority of industry would be able to comply with those regulatory requirements.

And as a result, we are working with industry to amend the regulation, and we anticipate bringing that to the Board early next year.

BOARD MEMBER EISENHUT: Thank you.
CHAIR NICHOLS: Anybody else?
Did you -- yes, Ms. Mitchell.
BOARD MEMBER MITCHELL: Thank you. Thank you, Madam Chair.

We talked this morning about the 3,500 buses that are -- need to be retrofitted. And I'm looking at slides 8 and 10, and these reference the supplemental
environmental projects. One of those is diesel school --
school bus -- diesel school bus clean up. And it does say
here that one half of the penalties can be given to these
SEPs. I noticed that the penalties in slide 10 show 34
million in penalties. Does that mean that we can look to
having 17 some million donated to cleaning up the diesel
school buses?

    ENFORCEMENT DIVISION CHIEF SAX: So I can answer
that a couple a ways. First of all, the current rules,
prior to the adoption of AB 1071 allowed the option of
diverting up to 25 percent of a penalty to a supplemental
environmental project. And one of those projects they
could donate to is the school bus SEP.

    The school bus SEP is administered by the San
Joaquin Valley board. And they've been accruing money in
anticipation of doing a solicitation to do a couple of
things. One is, if you recall, there were a number of
clear filters that were recalled, and so those buses
currently have empty cans. And the money that that SEP --
the money in that SEP would be used to put replacement
filters in those cans for those buses.

    There are also other opportunities for funding
through that SEP, and we expect that that money will be
spent later this year.

    With regards to the 3,500 school buses, I would
point out a couple of things. One of them is that the
tuck and bus rule that is on the books does regulate
school buses, and they are required to have filters. And
so many of those older buses that are actually out on the
roads, if they're able to, and they complied with the
regulations, they should have diesel particulate filters,
which will protect school children from exposure to diesel
exhaust. But not every school district was able to comply
and so there a an issue there that we need to address.

Finally, I would say that under our current
policy for supplemental environmental projects, we -- the
policy requires that the money not be spent to pay for
compliance. That is a policy issue we can grapple with.
It does allow, for example, that buses that are not
compliant could be assisted to overcomply. So right now
if the rule requires that they have a filter, we could
potentially use SEP money to get them into a 2010 bus or
to get them into a zero or near zero emission bus. And we
believe there are a lot of opportunities for that.

And so going forward, as we develop the new
supplemental environmental project policy, and the
associated mechanism to be able to spend that money, I
think there will be a lot of opportunities to help address
the issue that was identified this morning.

BOARD MEMBER MITCHELL: Thank you.
CHAIR NICHOLS: Yes, Dr. Balmes.

BOARD MEMBER BalmES: Well, I just had a more overarching question about the -- how the money is spent that is collected through enforcement other than the SEPs? Is there a sort of a standard operating procedure for the monies or is it totally discretionary?

ENFORCEMENT DIVISION CHIEF SAX: So the penalties that we put into our report represent penalties assessed. Most, if not nearly, all of those penalties are ultimately collected and they are deposited into the Air Pollution Control Fund.

BOARD MEMBER BalmES: And then it's use from the Air Pollution Control --

ENFORCEMENT DIVISION CHIEF SAX: Yeah, and then it can be appropriated by the legislature for uses as they choose.

BOARD MEMBER BalmES: Thank you.

CHAIR NICHOLS: Yes, please.

BOARD MEMBER SHERRIFFS: Small compared to Volkswagen, but a question regarding the complaint program. What's been the response of the public in terms of, for example, the smoking vehicle complaints, and is that something that we should be working to encourage more of and how would we do that?

ENFORCEMENT DIVISION CHIEF SAX: So I think it --
so we do receive quite a bit of complaints on these vehicles. And one of the things we're trying to do is figure out how to more efficiently address them. So we've worked -- the complaints are also being worked into the smart audit process. So when we get more complaints about vehicles that are tied to a particular fleet, we would investigate those fleets. When we do get idling complaints, for example, we do go out and try to address them. We can't always find the trucks that are idling at that time.

The response from the public is, you know, they provide complaints and we address them. I don't have much more information than that, but there is definitely, I think, some opportunities for improvement in that program and that's something we can look at going forward.

CHAIR NICHOLS: Yes, Sandy.

VICE CHAIR BERG: I just wanted to say I'm unique on this Board, in the fact that I am a regulated party. And I have been on the investigation side from both DTSC South Coast Air Quality, and ARB, because we do regular inspections --

(Laughter.)

VICE CHAIR BERG: -- of my two businesses. And what always impresses me is that that the understanding from enforcement that as you're inspecting -- and I was so
appreciative of this of ARB, when they showed up at my
facility that you're there to learn about a business but
also to make sure it's in compliance. And the way that we
interact with our stakeholders is so incredible. To me,
it's as important as it is investigating and being visible
as Chair Nichols said. And I want to congratulate you,
because I have heard from stakeholders that in
investigating that being part of that process, no
one -- we all shutter when investigators show up. But the
fact that we can learn from each other, and that we don't
feel like you're gunning for us. And from what I've heard
from the ARB Enforcement that's not the case. And so I
really want to congratulate you and job well done.

CHAIR NICHOLS: Okay. Yes, Ms. Takvorian.

BOARD MEMBER TAKVORIAN: Thank you. Thank you
for report. Appreciate it.

So I wanted to ask more questions about the SEPs,
and particularly the AB 1071, you said that there was a
plan being developed. And I wondered when that would be
coming back to the Board.

ENFORCEMENT DIVISION CHIEF SAX: So, yes, there
is a plan being developed. One of things we are doing is
updating our policy. We anticipate going to workshops and
then taking that policy also to the environmental -- the
environmental justice related enforcement meetings that we
attend in those areas that we mentioned in the slides.

Part of those discussions are going to be working on getting public input to the proposed policy, and part of it will be getting ideas for the types of projects that might potentially be funded in disadvantaged communities. And we anticipate coming to the Board in late this year, currently planning on December.

BOARD MEMBER TAKVORIAN: Okay. Thanks.

And then my second question was I thought I heard you say that the SEPs that related to 1071 were the SEPs that you showed on the slide, the three SEPs that you articulated. I thought that these SEPs were going to be specifically for impacted communities, and would be different.

ENFORCEMENT DIVISION CHIEF SAX: So the SEPs that you're seeing on the slide are long-standing SEPs that we've had in place for the last, you know, in the case of CCDET, 15 years. I think what you're going to see with the development of the new policy is that there is going to be a different procedure for SEPs. And so I anticipate that, for one, we're going to be changing the way in which we solicit from violators the opportunity to donate to SEPs, since we'll be allowed to donate up to 50 percent of a proposed penalty to that fund, and also new ways of making sure that those projects actually get funded.
So what you're seeing now is a report on what we've done in the past. I think what you'll see in December is a movement towards a different model.

BOARD MEMBER TAKVORIAN: Got it. So then my last question/comment is related to building in a way that the benefits of the penalties go to impacted communities. And we talked about this when you did the briefing that it's often all over the state if it's a fleet. But I just encourage you to figure out ways that the communities that are impacted by the lack of compliance are also benefiting from the SEP and the penalty.

ENFORCEMENT DIVISION CHIEF SAX: Absolutely, yes, we will.

BOARD MEMBER TAKVORIAN: Thank you.

CHAIR NICHOLS: I did not see a breakdown on how enforcement is affecting disadvantaged communities, which we've been talking about so much. And I know we're part of a CalEPA-wide task force that's working on that issue, in terms of making sure that our resources are being properly directed, and that we're making every effort to target the places where the effects of noncompliance are the most concerned. But I'm curious to know if you have any additional comments on what's going on in that effort?

ENFORCEMENT DIVISION CHIEF SAX: Sure. A couple of things. So we did mention in the slides that we set a
goal to conduct 50 percent of our diesel-related inspections in disadvantaged communities --

CHAIR NICHOLS: You did. That's true.

ENFORCEMENT DIVISION CHIEF SAX: -- and we achieved 64 percent. And that was -- you know, we've made a concerted effort to change some of the locations where we do our work to make sure that we're focusing in those communities. And we've seen a benefit in terms of an increased citation rate for the trucks that we pull over and inspect.

In addition to that, we have been working very closely with CalEPA, and it's been a very good productive partnership with them and the Department of Toxics, Integrated Waste Management Board, the Department of Pesticide Regulation. And in the past year, we conducted with them two different community -- two different community sort of enforcement related projects. One was in Boyle Heights and the other was in Pacoima.

And as part of that, there were community meetings up front to identify what the community concerns were. A number of us, including myself, took a bus tour of both communities to identify what the issues were. And then we deployed enforcement resources in those communities to look at a number of different things. For us, that meant looking at noncompliant trucks. We took
samples of consumer products at Dollar Stores. We conducted inspections of stationary sources for the refrigerant management program.

And CalEPA is currently developing a report from the results of those two community studies. And we believe that under the Governor's budget, this will be a more permanent effort going forward to have sort of a multi-media enforcement task force to look at disadvantaged communities. And we think it's going to be a very good model going forward for looking at and assessing, and really trying to get to the bottom of some of the at least enforcement related issues that are happening in these communities.

CHAIR NICHOLS: And I was remiss in not mentioning the diesel inspection efforts and how they had been targeted, because I know that in terms of the assessment of risk of toxic chemicals, that from what's within our jurisdiction, that the diesel particulate does rank as the number one risk area. So that's absolutely the right thing to be focused on. But I had heard a little bit about this sort of community effort. I wanted to give you a chance to talk a little bit more about that.

Any other comments, questions?

All right. Great. Thank you so much.

Our next report is also a -- sorry where am I?
Did I miss something?

Yes, I did.

Okay. Here we go. Here's number 3 in my book. Oh, because it was taken out of order that's why, because we took it out of order.

Okay. So enforcement and air quality progress.

Okay. Perfect. So we have another informational presentation opportunity for the Board to get caught up on the progress that we've been making on meeting our air quality objectives. And again, this is looking at both environmental justice and non-environmental justice communities attempting to sort of tease out some of the specific issues that relate to the disadvantaged communities, but also looking at it in the context of overall statewide progress. So we would like to hear next from Mr. Corey.

EXECUTIVE OFFICER COREY: Thank you, Chair. ARB, as you know, is committed to air quality for -- improvement for all Californians, healthy air quality. And environmental justice considerations have helped to inform ARB's priorities and shape its programs, notably your reference to the diesel risk reduction plan, our enforcement activities just discussed, and the projects under the Greenhouse Gas Reduction Fund.

Today, staff will address the issue of how
changes in the concentration of pollutants over the last 25 years in EJ census tracts compare to non-EJ census tracts as identified by the environmental justice screening method.

And with that, I'll ask Alvaro Alvarado of the Research Division to give the staff presentation.

Alvaro.

(Thereupon an overhead presentation was presented as follows.)

AIR RESOURCES SUPERVISOR I ALVARADO: Thank you, Mr. Corey. Good morning, Chair Nichols and members of the Board.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: Our presentation on air quality progress in California communities will be a summary of the 25-year trend in lowering air pollution levels in environmental justice communities compared to non-environmental justice communities. There have been many prior studies that show a disproportionate burden of air pollution on poor and minority communities. These studies have helped focus ARB's regulatory efforts where they are needed most near roadways, ports and railyards. However, these studies show pollution levels at a snapshot in time.

Our new study helps answer the question of
whether or not our collective regulatory efforts are
shrinking that disparity.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: Last year,
ARB staff published an article in a scientific journal
showing the trend in airborne cancer risk from 1990 to
2012. The study included the risks from car-related
pollutants and diesel PM, with diesel PM contributing the
most to cancer risk. On the chart, we see the diesel
exposure and cancer risk drop 68 percent at the same time
that the number of miles driven by diesel vehicles
increased 80 percent.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: While the
prior study showed that overall Californians are enjoying
improved air quality compared to 1990 levels. Today, we
ask the question of whether all communities are benefiting
equally.

To answer this question, we compared the 25 year
trends of diesel PM and several criteria pollutants, NO2,
carbon monoxide, PM2.5, and ozone in EJ and non-EJ
communities. To be clear, in this study, we are not
evaluating all exposures to all airborne pollutants in
specific communities. We are limited to the sites in our
monitoring network which are designed to characterize
maximum air pollution exposures at a regional level, not
from specific local sources.

Monitoring is certainly influenced by the
cumulative impacts of nearby sources, such as roadways,
oil refineries, power plants, and gas stations, but is not
designed to capture all neighborhoods and all near-source
exposures.

This study was designed to inform whether the
efforts to reduce emissions are also reducing the
disparity among communities.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: To answer
the question of whether all communities are benefiting
from statewide and local regulatory efforts, we use three
tools. First, we use the Environmental Justice Screening
Method, or EJSM, developed through an ARB research
contract. The EJSM formed the basis of CalEnviroScreen.
We use it in this study because it has an air pollution
focus, while CalEnviroScreen has more of a multi-media
focuses. I'll talk more about EJSM on the next slide.

Second, we use data California's monitoring
network operated by ARB and the local air districts. We
start the analysis in 1990 and 1999 for PM2.5 when the
current high quality measurement methods first went into
effect.
Third, because diesel PM is not measured directly, we developed a peer reviewed method for estimating its concentration using NOx measurements as a surrogate adjusted with diesel PM and NOx emissions inventories.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: The Environmental Justice Screening Method assigns an EJ score to each census tract in California, based on three map layers. The first layer is social and health vulnerability, which includes race/ethnicity, poverty and linguistic isolation. The second layer is exposure and risk, which includes airborne cancer risk, PM2.5, and pesticide usage. And the third layer is hazard proximity, which measures how close sensitive receptors like residents, hospitals, and child care facilities are to pollution sources.

The EJSM researchers developed this data for each census tract. They computed an EJ score by ranking census tracts within regions of California. The higher the score, the more burdened the census tract.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: We relied on an extensive network of air pollutant monitors from 1990 to 2014 with over 150 sites for each pollutant.
calculated annual averages as the most robust indicator of long-term trends and health effects for each pollutant. And based on the census tracts surrounding each monitoring site, we assigned an EJSM score to each monitor. We then split the monitoring sites into the 20 percent most EJ burdened and the 20 percent least EJ burdened by region, and we call that non-EJ. We average all the EJ monitors together by year and all the non-EJ monitors by year to get a year-by-year comparison of monitors in the most and least burdened communities in California.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: On this slide, is the EJSM map of Southern California with the location of all the monitoring sites used in our study. The more reddish an area, the higher its EJSM score. The monitors designated with a red dot are those located in the 20 percent most burdened census tracts. The monitors in blue are in the 20 percent least burdened census tracts. The yellow dots are those census tracts that are average levels of pollution, social and health vulnerability, and proximity to hazards.

With dozens of monitoring sites in EJ communities, we can evaluate whether they have higher air pollution levels than other sites, and we can study trends...
over time. As you can see from the map, the large investment in the statewide network includes a wide distribution of monitors in both EJ and non-EJ communities.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: Here we see the results for diesel PM. Each dot on the red line is an average of all monitors in EJ communities for a given year. And each dot on the blue line is an average of all EJ -- of non-EJ monitors for a given year.

Over the 25-year study period, we see large diesel PM reductions at sites throughout the state with three times greater reduction at the EJ sites compared to the non-EJ sites. We have made noteworthy progress in narrowing the gap, but a disparity among EJ and non-EJ sites remains that we must continue to address.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: Here, we show the trend for NO2. Since diesel engines are the main source of NOX emissions in California. It's not surprising that NO2 follows the same pattern as diesel PM. Again, the greatest reduction is at the EJ sites with about two times greater reductions than the non-EJ sites.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: We observed
decreased diesel PM and NO2 everywhere with the greatest
reductions at EJ monitors.

Why?
ARB has implemented regulations and enforcement
aimed at local sources like roadways, ports, and
railyards. These are places where EJ activists have urges
to redouble our efforts. The ambient diesel PM trend
reflects a decline at the same time as ARB diesel PM
regulations come into effect.

First, reducing sulfur from diesel fuel in 1992,
and again in 2006, made immediate and large reductions in
diesel PM.

Second, the cleaner fuel enabled tailpipe
standards that require PM emissions from new trucks to
approach those from new cars. These tailpipe standards
for new vehicles resulted in gradual declines as the fleet
turns over.

Since diesel trucks can operate for many years.
In 2008, ARB adopted a truck and bus rule, which regulated
existing diesel trucks and buses for the first time. It
required the installation of PM filters and replacement of
older vehicles, depending on the nature and age of the
truck fleet. The requirements come into effect
incrementally between 2012 and 2023, with all trucks
requiring some form of control by 2016.
Diesel PM data shows a drop starting in 2012 and continuing through -- until 2014, coincident with the implementation and enforcement of the truck and bus rule. We will continue to track diesel PM levels to see if they decline as the rule is further implemented and the fleet continues to turnover.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: While California meets all air quality standards for carbon monoxide, it is a useful -- it is useful to look at this pollutant as a marker for toxics and other pollutants emitted from gasoline fueled vehicles.

As with diesel PM and NO2, we see that carbon monoxide monitoring sites in EJ communities were consistently higher than non-EJ sites, but levels have gone down everywhere with a two times greater reduction in EJ sites compared to non-EJ sites.

And in this case, we see the two lines converging to the point where carbon monoxide levels are now roughly the same for monitors located in the most and least burdened communities.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: For carbon monoxide, we observed concentrations increasing everywhere with the greatest reductions at EJ monitors. And why do
we think this is happening? The carbon monoxide Ambien measurements show a steady decline throughout the study period, suggesting that there's a consequence of the implementation of numerous regulatory strategies. Starting before the study period, regulations that impacted carbon monoxide emissions include the California Smog Check program starting in 1984. Then reformulated gasoline in '92, and again in 1996. The low emission vehicle standards, or LEV, further lowered carbon monoxide emissions.

Interestingly, by the year 2010, CO monitors in both and EJ and non-EJ tracts measure equivalent levels of CO. We think that this was the result of fleet turnover in the most burdened communities. Based on remote sensing data from one on-ramp in Los Angeles, in 2005 the percent of pre-LEV vehicles was estimated to be 23 percent in EJ census tracts compared to eight percent in non-EJ census tracts. By 2013, the estimated gap had narrowed to six percent in EJ tracts and three percent in non-EJ tracts.

This suggests that fleet turnover has replaced older pre-LEV vehicles with LEV vehicles everywhere and succeeded in reducing carbon monoxide and other tailpipe standards in the most burdened communities.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: The last
two pollutants in this study PM2.5 and ozone. Both pollutants are formed in the atmosphere from NOx, hydrocarbons, and other precursors. Their formation occurs regionally downwind of precursor emissions sources and thus regulations to control precursors have an impact regionally, not locally.

As we see on the graphs, both PM2.5 and ozone are decreasing over the study period and they are decreasing equally in the most and least burdened communities. The lack of a downward trend for PM 2.5 in the last three years may be the result of California's drought.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: In conclusion, in some -- while some diesel and gasoline fuel engines regulations preceded environmental justice activism, environmental justice advocates have organized to reduce pollution and near-roadway sources especially diesel PM. The awareness and action they generated resulted in joint efforts from community organizations, academia, and government to address the issue with regulations aimed at sources that are concentrated near disadvantaged communities, including roadways, ports, railyards in California, and elsewhere in the United States.

In this study, we see the results of those
efforts. We find that pollutants with controls that impacted near-source concentrations – diesel PM, NO\textsubscript{2}, and carbon monoxide – had the greatest decreases at monitors located in EJ census tracts.

The regional pollutants PM\textsubscript{2.5} and ozone are formed in the atmosphere far from sources and show similar declines at monitors located both in EJ and non-EJ communities.

There are many efforts to further reduce emissions from pollutant sources, both regionally and those concentrated near disadvantaged communities. With continued phase-in of the truck and bus rule through 2023, development of State implementation plans, and the multi-agency efforts on sustainable freight, we expect that the remaining disparities will continue to shrink and we will continue to monitor progress.

--o0o--

AIR RESOURCES SUPERVISOR I ALVARADO: While this study highlights the progress made towards environmental justice, it also emphasizes the continued need to further evaluate air pollution levels in the most burdened communities and reduce overall exposure.

To this end, the air districts are currently installing a near-roadway monitoring network with 12 sites to track the progress of our motor vehicle control program.
in reducing local exposures. In addition, ARB is investing in enhanced monitoring of the oil and gas sector, other greenhouse gas sources, and pesticides. Many of these efforts will take place in EJ communities. They are now satellite capabilities for PM2.5 and a few other pollutants that can detect pollution hot spots, complimented by networks of portable monitoring devices and mobile monitoring platforms that are being deployed in EJ communities around the State by ARB, and other agencies, academics, and environmental justice groups.

While this monitoring is not necessarily the same quality as the official networks, it is very promising for screening purposes and to help identify the responsible sources.

Before ending the presentation, I want to acknowledge Professors Manuel Pastor, Rachel Morello-Frosch, and Jim Sadd as collaborators on this study and developers of the environmental justice screening method. They sent a letter in support of this item.

In it, they reiterate that this study shows that EJ remains an important issue, and progress is possible when policymakers and communities work together to uncover problems and develop effective solutions.
I look forward to your questions that you might have on this study.

Thank you.

CHAIR NICHOLS: Thank you. The letter was distributed to all of us at the beginning of this meeting. And I see we have a couple of the authors with us. So that's great.

Okay. Thank you. Questions comments?

Yes, Dr. Balmes, start with you.

BOARD MEMBER BALMES: Well, first off, I really want to express my appreciation to the Research Division for conducting this work, because I think it gives us some confidence that we're -- our overall strategies are making a difference for all of Californians, those in disadvantaged communities, EJ communities, as well as non-EJ communities. This is the fourth time I've heard the presentation now, so I've been well briefed, and it gets better each time.

(Laughter.)

CHAIR NICHOLS: Well, that's good.

AIR RESOURCES SUPERVISOR I ALVARADO: Thank you.

BOARD MEMBER BALMES: And I'm -- I know that Alvaro and Bart are expecting to publish this along with the co-authors from academia Manuel, Jim, and Rachel.

So I think overall there's a good message here,
and I like the fact that you're going to try to tweak this in the future with better monitoring data and more comprehensive monitoring data. So I look forward to future presentations.

I guess one concern I have is that the -- I'm going to make sure that I say it right. The Environmental Justice Screening Method, again which I've known about for some time, is used here, as you mentioned was used as the basis for CalEnviroScreen, but it's different than CalEnviroScreen, because it just focuses on air pollution as the environmental exposure.

And I just worry about people getting confused between this screening method and CalEnviroScreen. I actually am more comfortable with screening method because I understand the inputs for this better than I understand the inputs for CalEnviroScreen. And I've had some concern about that I've expressed to OEHHA.

So I guess that's my major concern is that we're using one screening method, and I think it's totally appropriate for our purposes, so I'm not being critical of that. But another sister agency is using a different one. And it's the CalEnviroScreen that's determining what are disadvantaged communities with regard to greenhouse gas revenues.

I actually would be more comfortable with
Environmental Justice Screening Method being used to
determine those disadvantaged communities, but, you know,
that's, I guess, above my pay grade.

(Laughter.)

BOARD MEMBER BALMES: So that's my major concern.

AIR RESOURCES SUPERVISOR I ALVARADO: Yeah.

While, the EJSM is mostly air pollution focused and
CalEnviroScreen is mostly multi-media focused, we did do a
sensitivity analysis to see if we got similar results with
CalEnviroScreen. And the results are obviously not going
to be exactly the same, but they're consistent.

BOARD MEMBER BALMES: Well, thank you. I was
just going to ask you to do that, but I decided I could do
that not from the dais. I was just going to do that
privately. So thank you. That's what I wanted to hear.

AIR RESOURCES SUPERVISOR I ALVARADO: I figured
somebody would ask.

CHAIR NICHOLS: I think it would be surprising if
it wasn't.

BOARD MEMBER BALMES: Well, you know, there's
pesticide exposure and water quality issues --

CHAIR NICHOLS: True.

BOARD MEMBER BALMES: -- that are inputs for
CalEnviroScreen that aren't inputs here. So, to me, this
is cleaner, because it's not mixing apples and oranges.
CHAIR NICHOLS: Yeah. I think maybe it's just that our data overwhelmed all the other data.

(Laughter.)

BOARD MEMBER BALMES: I think that's likely to be true.

CHAIR NICHOLS: Okay. Other comments. Yes.

BOARD MEMBER TAKVORIAN: Yeah, that's a whole conversation that would be interesting to have. I would say that I thought it was a good use of EJSM, which I've been familiar with, and we had the opportunity to do ground-truthing with EJSM locally with community residents, and hopefully improved it a bit, but it was really good to start with.

And one of the things that I think is important is that it includes proximity, which CalEnviroScreen does not in quite the same way. So I think it's important to -- it's great that we have both the tools really. And I guess I would just thank Alvaro and your team for the work that you all have done. I think it's really important for us to take a look at it. And plus, I really appreciate the acknowledgement that the rules and the regs really are making a difference. And I think we can take heart from that, and know that we're on the right track, and also know that we're not there yet, that we -- there's a lot more work to do, and that the laws that have come
into place in the last 10 to 15 years, particularly around environmental justice, have really started to make, I think, a difference, and the work of this agency has really made a difference, but the gap is still there, and so we appreciate the work that the agency will do going forward.

And one specific question I'm forgetting. But I think that that's good. Thank you so much.

CHAIR NICHOLS: Okay. Well, I think that may be the conclusion then. Thank you so much. It's very helpful to hear this report and know the progress that's being made, so thank you.

Our last item of the day is the presentation of our current version of the concepts for the scoping plan. It's a plan to scope a scoping plan I guess you might say.

(Laughter.)

CHAIR NICHOLS: I mean, it's -- there's a lot of thinking that's gone into it, but the level of generality obviously is still pretty high, but I think that's necessary in order to gather the kind of input that we need and really to have the time to test out some of the ideas that people have about how we could improve the overall effectiveness our climate efforts.

So we are under a -- under a mandate to produce a new scoping plan. We are currently on track to meet our
2020 target, which seems like it's right around the corner, and we only started working on it just a few days ago. But, in fact, we are well down the road towards meeting the target that was adopted in 2020 that represents a return to 1990 emissions levels for the State of California, which was and is a challenging milestone in and of itself, given the growth that has occurred in California both in our population and in our economy during this period of time.

And we've learned a lot along the way and fine-tuned many of the concepts. So this new version focused on the 2030 goal is a chance to reflect that learning and to refocus our activities.

The State, as a whole, not only through the scoping plan, but efforts of many other agencies, has developed an energy -- set of energy policies that are helping to decarbonize all of our energy systems and our industries. And the data that have come in, particularly within the last year, indicate that California's economy has rebounded from the Great Recession, and, in fact, is now leaping ahead of other regions.

And while we can't claim that AB 32 is the cause of that, we can at least say that this growth has been occurring in parallel with our implementation AB 32, and that it demonstrates that a very progressive and active
program to address the need to reduce overall carbon emissions is not inconsistent with growth in the economy and overall quality of life. So this is good news.

The first update to the scoping plan, which this Board adopted in 2014, was built upon the original scoping plan, and it continued all of the programs in effect and added some new ones. Now, that we are focused on the goal, which the rest of the world is also looking at as a result of the Paris agreement, of a much more — a much more ambitious 2030 target based on the science that has indicated that we need to make more drastic changes overall around the world, it's an opportunity to look at some of the sectors that we have identified, but hadn't really worked on before. And that's particularly true in the area of natural resources and forestry water, areas that are integral to our economy and well-being as a state, but that don't -- had not previously been able to be translated into really specific climate-related measures.

This time around I think we need to, again not just focused on reducing greenhouse gas emissions, but really speak in a more explicit way about sustainability and how reducing greenhouse gas emissions overall is apart of a plan to make our State more sustainable.

So this is a long-term venture that we're
embarked on, but we've had tremendous support in this
effort from our Governor who continually returns to these
issues as being at the heart of his legacy, and more just
than a legacy really of his belief about what California
has to offer to the world, and what makes us a place that
people around the world look to for leadership on issues
of fundamental importance to our civilization.

So with that, I think I should turn this over to
Mr. Corey and we'll hear the staff presentation. This is
just an informational item. We're not being asked to take
action, but I think it's an opportunity for the Board and
others to weigh in on some of the things that we should be
thinking about as we move forward.

All right.

EXECUTIVE OFFICER COREY: Thanks Chair Nichols.

As envisioned in the initial AB 32 scoping plan,
the State has implemented a comprehensive -- comprehensive
suite of strategies across sectors that are moving
California toward a low carbon future. The State has made
tremendous strides increasing our renewable energy use,
and increasing energy efficiency thus saving billions in
reduced electricity costs.

Each day, renewable fuels, with the help of a Low
Carbon Fuel Standard, are displacing more gasoline and
diesel. California's pioneering zero emission vehicle
regulation is driving a transformation of the State's vehicle fleet. And California is also making strides towards reducing the number of vehicles that are driven -- or rather miles driven through more sustainable transformation, transportation, land use, and housing planning.

And the State has also developed the most comprehensive Cap-and-Trade Program in the world, sending a clear signal than investment in clean low carbon technologies will be rewarded. So collectively, these actions are evidence of California's ability to show that it has -- it's possible to break the historical connection between economic growth and associated increases in energy demand, combustion of carbon intensive resources, and pollution.

And we also know that preventing the worst impacts of climate change will require accelerated development and diffusion of these technologies, not just in California, but across the world. We must continue to take bold actions that will provide greater public health and increasing economic benefits for Californians and continue to serve as a model for other states and nations to follow.

So the 2030 update to the scoping plan will build on the success that we've experienced to date a suite of
policies to help ensure California meets its ambitious climate goals over the next 15 years and beyond. And with that, I'm going to ask Stephanie Kato to give the staff presentation.

Stephanie.

(Thereupon an overhead presentation was presented as follows.)

AIR POLLUTION SPECIALIST KATO: Thank you, Mr. Corey. Good afternoon, Chair Nichols, Vice Chair Berg, and members of the Board. The focus of this presentation is to provide the Board with an update on the progress to date, upcoming activities, and current schedule to update the scoping plan to map out a strategy to meet the 2030 greenhouse gas emission reduction targets set by Governor's Executive Order B-30-15.

--o0o--

AIR POLLUTION SPECIALIST KATO: For this presentation, I will start with a summary of the scoping plan development activities we have completed to date. A scoping plan concept paper was made available for public review and comment last Friday. After providing the summary of activities to date, the remaining majority of my presentation will focus on highlighting content in the concept paper.

I will provide information on the framing for
this scoping plan, which at the highest level, seeks to
map out a comprehensive approach that incorporates
multiple ongoing State efforts. I will summarize recent
updates to ARB's greenhouse gas emission inventory. I
will discuss the results of a draft business-as-usual
reference scenario that helps define the amount of
greenhouse gas reductions needed between now and 2030 to
achieve the target; and, at a high level, provide current
progress towards identifying the policies and measures to
include in the approach to achieve the 2030 target.

Lastly, I will share a tentative schedule for
regional workshops, technical workshops, and release of
documents ahead of future Board meetings for consideration
of the draft and final scoping plan.

--o0o--

AIR POLLUTION SPECIALIST KATO: This scoping plan
update is in response to Executive Order B-30-15. The
order issued by Governor Brown establishes a 2030
statewide greenhouse gas emissions reduction target of 40
percent below 1990 levels. The order also directs ARB, in
coordination with sister State agencies, to update this
scoping plan to chart the path towards achieving the 2030
target and put the State on the path to achieving the 2050
reduction target of 80 percent below 1990 levels.

--o0o--
AIR POLLUTION SPECIALIST KATO: Similar to previous efforts, the 2030 target scoping plan update is being developed in an open and transparent manner involving coordination with State agencies, engagement with the legislature, consultation with the Environmental Justice Advisory Committee, and multiple opportunities for stakeholders and the public to engage in the process through workshops and other meetings.

ARB staff will prepare and present an environmental analysis as required under the California Environmental Quality Act, as well as public health analysis. I also want to emphasize that the scoping plan is being closely coordinated with other State agency plans, including the Clean Power Plan, the State Implementation Plan, the Sustainable Freight Strategy, and the Short-Lived Climate Pollutant Reduction Strategy among others.

The scoping plan will integrate and provide a comprehensive picture on how each of these plans fits together within the State's broader efforts to improve air quality and reduce greenhouse gases.

--o0o--

AIR POLLUTION SPECIALIST KATO: While we are continuing to work on the entire suite of measures, that will be included in the 2030 target scoping plan update,
we recognize that we are not starting from a blank slate. We are building on the strong foundation of programs and policies that are already in place to achieve the 2020 target established under AB 32.

Several of the existing programs are listed here and include the Cap-and-Trade Program, the Low Carbon Fuel Standard, the Renewables Portfolio Standard, and the Advanced Clean Cars Program. For each of these existing programs, we are examining the potential role that each can play in moving towards the 2030 target, including continuation, expansion, and strengthening of programs. As the existing programs are yielding the greenhouse gas reductions we need to achieve the 2020 target, they provide a strong foundation to build upon. We are also examining the role of new efforts that are needed to achieve the 2030 emission reduction goal, such as the Short-Lived Climate Pollutant Reduction Strategy, and the new Renewables Portfolio Standard requirement of 50 percent by 2030.

--o0o--

AIR POLLUTION SPECIALIST KATO: Federal, State, and local action can be complementary. We have seen federal action through the Clean Air Act, development of the Clean Power Plan to reduce greenhouse gases from power plants, and methane rules for oil and gas production.
Regional and local governments are also leaders in addressing climate change and are uniquely positioned to reduce emissions. Many local governments have already initiated efforts to reduce greenhouse gases beyond those required by the State.

Local governments can play an important role in achieving the State's long-term greenhouse gas goals, because they have broad influence over activities that contribute to significant direct and indirect greenhouse gas emissions. This includes their planning and permitting processes, discretionary actions, local ordinances, outreach and education efforts, and municipal operations.

Local government efforts to reduce emissions within their jurisdiction also provide important co-benefits, including improved air quality, local economic benefits, more sustainable communities, and an improved quality of life.

Local actions are critical for implementation of California's ambitious climate agenda. Local municipal code changes, zoning changes, or policy directions that apply broadly to the community within the general plan or Climate Action Plan area can help promote the deployment of renewable, zero emission, and low carbon technologies such as zero net energy buildings, renewable fuel
production facilities, and zero emission charging
stations.

ARB staff is currently exploring the potential to
identify lists of actions that local governments can take
within each economic sector. The local agencies may be
able to use that information as a basis for local climate
action plans, general plans, and developing
performance-based significance thresholds for CEQA.

At the State level, California is not alone.

Today, the State's Cap-and-Trade Program is linked with
Quebec's program. Ongoing discussions to Link with
Ontario's Emerging Emissions Trading System are underway.

Low carbon fuel mandates, similar to California's
Low Carbon Fuel Standard, have been adopted by the U.S.
EPA and by other jurisdictions, including British
Columbia, the European Union, and the United Kingdom.

Over two dozen states have a renewable portfolio
standard. California can continue its leadership role and
partnerships to support action around the world.

--o0o--

AIR POLLUTION SPECIALIST KATO: The 2030 target
scoping plan update will include an economic analysis,
which will evaluate the economic impact to California of
achieving the 2030 emission reduction target.
Specifically, the analysis will evaluate the economic
impact of the various technology pathways and technologies included in the scoping plan, as well as their use and adoption in the State, their costs, and the potential savings they may produce.

The economic analysis will also include the economy-wide interactions of carbon pricing, as well as an assessment of the potential impacts to California businesses and residents. In order to ensure a robust economic analysis, we have established a group of expert peer reviewers who are serving in an advisory capacity in the assessment of the economic impacts of the scoping plan.

The core group is comprised of five reviewers from UC Davis, UC Berkeley, and MIT that have experience in California climate and air pollution policy, energy markets and modeling, transportation and fuels, and power systems and energy efficiency. Additional input may be sought for expertise in other areas such as the natural and working lands sector.

The purpose of the expert review group is to assist ARB by providing expert advice, review and input on various topics, including economic and macroeconomic impacts, the technology pathways that will be considered, assumptions and inputs to the PATHWAYS and REMI models, translation of costs and savings between models, carbon
prices and monetized costs and savings, and interpretation of model results.

---

AIR POLLUTION SPECIALIST KATO: AB 32 directs ARB to convene an Environmental Justice Advisory Committee, or EJAC, to advise the Board on a scoping plan. The first EJAC was appointed in 2007 to advise development of the original 2008 scoping plan, and reconvened in 2013 to advise it on the first update.

For the 2030 target update, the 13-member EJAC is again advising ARB on the plan. As you may recall, last September, the Board approved the appointment of new members from the Inland Empire, Bay Area, and Sacramento to fill EJAC vacancies from former members that left their positions. To date, the EJAC has held eight public committee meetings in Sacramento, San Bernardino, Brawley, and El Monte.

The EJAC has been receiving updates from scoping plan staff on potential measure concepts for the 2030 update, and is finalizing their initial list of draft recommendations for agency consideration. ARB staff is working closely with the EJAC and sister agencies to convene multiple community meetings in various locations statewide over the next couple of months. These meetings seek to provide education and outreach on State programs.
with the focus on those that inform the scoping plan, hear
from community members on their priorities and needs, and
build lasting partnerships for future engagement on State
climate policies.

The committee has and will continue to conduct
public discussions on the development of the 2030 target
scoping plan update. All EJAC meetings are public and
include the opportunity for interested stakeholders to
provide comments and ask questions. I would like to point
out that we have a member of the EJAC with us here today
who will be providing oral comments.

--o0o--

AIR POLLUTION SPECIALIST KATO: This slide recaps
our public process for the scoping plan to date, which
started with the Governor's pillars workshops last summer,
and the first kick-off workshop held in September on
October 1, 2015. The multi-agency kick-off workshop was
co-hosted by the California Environmental Protection
Agency, California State Transportation Agency, California
Energy Commission, California Public Utilities Commission,
California Natural Resources Agency, California Department
of Food and agriculture, Air Resources Board, and the
Governor's Office of Planning and Research. And it
provided our sister agencies with the opportunity to share
their near and long-term visions for the State, and also
provided an additional opportunity for public engagement, comments, and questions.

As I mentioned, the EJAC has met to discuss scoping plan development and potential recommendations in eight public meetings from last December through this month. The economic advisor process and greenhouse gas modeling efforts were introduced in January of this year at a public workshop.

In March and April of this year, ARB staff held sector-focused public workshops on natural and working lands and agriculture in Sacramento and Fresno in conjunction with the California Environmental Protection Agency, California Natural Resources Agency, California Department of Food and Agriculture, Governor's Office of Planning and Research, and the California Strategic Growth Council.

Each of these engagements has included either informal or formal public comment periods. Written comments, in addition to oral comments, heard at workshops are being considered as we continue to develop the 2030 target scoping plan. As I will discuss later, there is an opportunity to provide formal comments on the concept paper, as well as more opportunities for public engagement during the scoping plan development process.

--o0o--
AIR POLLUTION SPECIALIST KATO: As we chart a path to achieve the 2030 and 2050 greenhouse gas targets, we must develop a plan to meet the 2030 target, but we must also take a holistic approach that is more than merely the sum of its sectors. A comprehensive approach accounts for interactions across sectors instead of treating each sector as a siloed track. Efforts, such as the Mobile Source Strategy, Sustainable Freight Plan, California Transportation Plan 2040, and goals for the natural environment can complement each other.

When examined together, they provide insights into the trade-offs of policies across sectors until a larger story about how the State will move towards a sustainable future. This scoping plan can help identify the policy choices that minimize costs and optimize win-win solutions, while recognizing that it is difficult to accomplish all State goals at the same time.

Actions and tools recommended by the scoping plan must include a flexible framework for implementation. Combinations of regulations, incentives, voluntary action, private-public partnerships, and support from non-governmental organizations can be leveraged to promote desired actions. And achieving our goals requires a structural shift in the global economy, which is already underway.
Successfully driving this transition will require cleaner and more efficient technologies, new policies, and incentives that better recognize and reward innovation and prioritize low carbon investments. This scoping plan will identify new ways to promote the technologies and infrastructure required to meet our climate goals, while also presenting a vision for California's continuing efforts to foster a clean energy economy.

Natural and working lands are integral to our climate strategy. Storing carbon in trees, plants, aquatic vegetation, and in soil is one of the most effective ways to remove greenhouse gases from the atmosphere.

This scoping plan will include policies and programs that prioritize protection and enhancement of the State's landscapes. The plan will build off ongoing efforts to identify targets for natural and working lands, such as the Forest Carbon Plan. Climate change is already impacting the health of our communities, with those facing the largest health inequities being residents of disadvantaged communities. The capacity for resilience is driven significantly by living conditions and the forces that shape them, including income, education, housing, transportation, environmental quality, and access to services such as health care, healthy foods, and clean
Addressing climate change presents a significant opportunity to improve public health. Promoting a low carbon economy will reduce greenhouse gas emissions and create a healthier environment for all Californians, especially those living in disadvantaged communities.

The scoping plan will include a public health assessment that will discuss key statewide climate mitigation measures and their potential impacts on public health, especially co-benefits, such as the reduction of criteria and toxic air pollutants.

Sound science underpins and strengthens climate policy. This scoping plan will identify policies based on solid science, and identify additional research needs. Sectors, such as natural and working lands, have very complex biological systems. While we have made significant progress in understanding the role forests play in climate mitigation, ongoing research to better understand those and other systems will allow additional opportunities to set targets and identify actionable policies.

While this update is focused on 2030, we must also consider policies needed for the long term, knowing that some of those policies must begin implementation now. At the same time, we must consider policies for 2030 that
do not simply deadened in 2030, but can continue to help support the State's 2050 climate goal.

As you can tell, we will be trying to balance many important considerations as we piece together a statewide strategy that continues to support the iconic landscapes and values of the State.

--o0o--

AIR POLLUTION SPECIALIST KATO: As I mentioned, the idea of an integrated system is providing the overarching strategy for this scoping plan, that the whole is greater than the sum of its parts. An example of this comprehensive analytical approach and tradeoff discussion is evident when we look at the interaction of the natural and working lands sector with the other sectors.

There are management and policy synergies within the natural and working lands sector, such as using organic waste as agricultural compost. And there are synergies with electricity, fuels, sustainable communities, and short-lived climate pollutants -- excuse me, short-lived climate solutions as well.

We are using this scoping plan update as an opportunity to identify those and build on existing investments to grow them over time. Forest management activities undertaken to promote forest health and reduce risk of major stored carbon reversals like wildfire will
produce waste wood for disposal.

This can be left in piles or burned in place, but this produces the short-lived climate pollutants black carbon and methane. We should evaluate other uses, such as community-scale bioenergy production and biofuels that displace petroleum and other fossil fuels, and associated transportation emissions, and create new businesses and jobs in rural communities. The same can be said for organic waste produced in agricultural settings.

Similarly protecting land from development will not only ensure that land can continue to take carbon dioxide out the atmosphere each year, it will also pay dividends in terms of supporting development patterns that require residents to drive less reducing associated fuel use. And growing the urban forest, planting trees as well as pursuing other green infrastructure opportunities in both urban and rural communities, will provide the shade needed to reduce building energy use for cooling and make active transportation more attractive.

We'll need to identify and pursue these feedback loops in a coordinated fashion across agencies and industries to hit our 2030 and 2050 targets. We plan to use the scoping plan to refine these synergies and integrated strategies to pursue pathways for technologies that yield cross-sector, emission-cutting benefits.
AIR POLLUTION SPECIALIST KATO: The next portion of this presentation focuses on ARB's existing greenhouse gas emission inventory. The inventory is published by the ARB annually. It provides a time series for tracking emission trends. In 2006, AB 1803 gave ARB the responsibility to develop and maintain a statewide greenhouse gas inventory. The inventory follows the guidelines of the Intergovernmental Panel on Climate Change, or IPCC, to estimate the amount of greenhouse gases emitted to the atmosphere by human activities within California.

Following IPCC guidelines ensures consistency and comparability with other national inventories. This is important because consistency and comparability provide a foundation for California to participate in climate change dialogues at the national and international level.

AB 32 provided additional instruction to greenhouse gas inventory compilation. It explicitly named seven greenhouse gases. The original AB 32 text in 2006 included only six, the so-called Kyoto Protocol gases. Nitrogen trifluoride was later added in 2009 when SB 104 amended AB 32 to include the seventh gas.

AB 32 also specified that California needs to track emissions from imported electricity generated
outside of the State. This expands the inventory beyond the typical boundary of the IPCC inventory framework, which extends -- excuse me, which ends at the national borders, or in California's case, would be the State borders.

In addition, AB 32 instructs ARB to quantify California's historical greenhouse gas emission level in 1990, which became the 2020 emission limit that California must achieve.

--o0o--

AIR POLLUTION SPECIALIST KATO: Starting with the 2014 greenhouse gas inventory, ARB has implemented some updates consistent with IPCC guidelines. The two most significant updates include, first, reclassification of carbon dioxide from combustion of transportation biofuels as biogenic carbon dioxide. These emissions will continue to be tracked as separate informational line items in the inventory. Consistent with IPCC guidelines, the biofuel carbon dioxide reclassification is applied to the entire inventory time series from 2000 to 2014 to maintain a consistent inventory time series.

Second, reclassification of petroleum seeps as excluded emissions. Petroleum seeps are a natural emission source. IPCC guidelines do not identify petroleum seeps as an emission source to be quantified,
nor are they included in the U.S. EPA's National Greenhouse Gas Inventory. Like biofuels, petroleum seeps emissions will continue to be accounted for as a separate informational item in the inventory. Since transportation biofuel volumes were negligible and petroleum seeps emissions were very small in 1990, the reclassification of the these emissions has a negligible impact on 1990 emissions and the 2020 target.

--o0o--

AIR POLLUTION SPECIALIST KATO: California has made progress toward achieving the 2020 target while supporting economic growth. California currently ranks as the world's sixth largest economy for 2015. And as shown in the graph, in 2014, total greenhouse gas emissions decreased by 2.8 million metric tons of carbon dioxide equivalent compared to 2013, representing an overall decrease of 9.4 percent since peak levels in 2004. The 2014 inventory includes the improved methodology updates. The inventory data shows the portfolio programs that the State is currently employing to reduce greenhouse gases and achieve the 2020 target is working.

--o0o--

AIR POLLUTION SPECIALIST KATO: As we examine the data from AB 32 programs and the sources of data used in
the emission inventory, we have begun discussing whether an alternate framework would more effectively track the benefits of AB 32 programs. Such a framework would be built upon the existing emission inventory, but could introduce new data sources or methods.

It is important to note that in any case, the existing emission inventory will be maintained for consistency with international and national inventories, as well as to maintain a time series for tracking emission trends.

As we look forward, we are evaluating how the bottom-up data from our AB 32 programs could be used to refine the inventory numbers to more accurately reflect the impacts of these programs. There is a broader discussion at the international level on how accounting frameworks, such as those for linked trading programs could account for flows of compliance instruments across international boundaries.

Similarly, the Low Carbon Fuel Standard includes data to estimate the land-use impacts to greenhouse gases associated with the production of biofuels. Our aim is to consider an accounting framework that is transparent and offers the most effective perspective for the purpose of tracking AB 32 program progress.

Just as importantly, the exchange of carbon
dioxide between the atmosphere and natural and working lands is not currently quantified and is not included in the inventory, but is essential for monitoring land-based activities that may increase or decrease carbon sequestration over time.

ARB staff is working with other State agencies, nonprofit organizations, and research institutions to develop an inventory of greenhouse gas fluxes from all of California's natural and working lands using IPCC design principles. The scoping plan will describe our progress and identify any gaps.

--o0o--

AIR POLLUTION SPECIALIST KATO: To chart the path towards the 2030 target, we first need to understand the amount of greenhouse gas reductions needed between now and 2030. This is best understood by first modeling the reference case, also referred to as "business as usual", which extends today's existing programs to 2030 to estimate future emission levels.

ARB staff held a workshop in January with Energy and Environmental Economics on the PATHWAYS model, and discussed the parameters for a reference case. Since then, modeling results for a draft reference scenario have been generated that include the updated methodology for estimating biofuel supplies. The results are depicted in
the next slide. Staff is currently soliciting feedback on
the appropriateness of the assumptions used in developing
the reference case

---000---

AIR POLLUTION SPECIALIST KATO: This graph shows
that the State is expected to achieve the 2020 target, but
additional effort is needed to maintain and continue
greenhouse gas reductions to meet the 2030 midterm target
and 2050 long-term target. This gives us an indication of
the magnitude of the challenge we face in the scoping plan
process to develop a set of emission reduction measures
that can contribute to and achieve the 2030 goal, while
ensuring the State is on a path towards achieving the 2050
target.

These modeled results in the trends seen in the
greenhouse gas inventory demonstrate that the current
suite of greenhouse gas reduction measures is working as
expected, while the economy has continued to grow.

---000---

AIR POLLUTION SPECIALIST KATO: In mapping out
the path to achieve the 2030 target, it is important to
understand the sources of emissions when considering the
policies and programs to reduce greenhouse gases. The pie
chart provides the percent Contribution to statewide
emissions from the main economic sectors as reflected in
the 2014 emission inventory.

Climate mitigation policies must be considered in the context of the sector's contribution to the State's total greenhouse gas emissions. Transportation, electricity, and industrial sectors are the largest contributors and present the greatest opportunities.

However, to ensure decarbonization across the entire economy, policies must be considered for other sectors as well, because over time they will contribute a larger fraction of the State's greenhouse gases.

The challenge before us is to identify what additional policies or program enhancements we need to achieve the remaining amount of greenhouse gas reductions in a complementary, flexible, and cost effective manner to achieve the 2030 target. These policies should continue to encourage reductions beyond 2030 to keep us on track to stabilize climate.

Policies that ensure economy-wide investment decisions that incorporate consideration of greenhouse gas emissions are particularly important. At the same time, we need to acknowledge the integrated nature of our built and natural environments. In this scoping plan, each of the policies directed at the built environment must be weighed against the high level goals for the natural and working lands sector.
AIR POLLUTION SPECIALIST KATO: The heart of this scoping plan update is to determine the suite of policies needed to close the gap between the business-as-usual future and the 2030 target, and will therefore be the focus of scenario building and analytical work going forward. For every greenhouse gas reduction scenario, there will be a set of core complementary policies that will be common to each scenario. These include policies that are explicitly required in statute, such as the 50 percent Renewables Portfolio Standard, because that is required under SB 350.

This slide lists some of the known policies and measures that will be part of any scoping plan scenario to achieve the 2030 target. Even though natural and working lands aren't included as a specific sector in the statewide target, they have a large role to play in reducing greenhouse gases and supporting a more resilient and sustainable economy.

To that end, State agencies will coordinate to develop metrics that can translate into action with the ability to track those metrics over time. For example, interagency staff is exploring using acreage as a way to track efforts over time to increase sustainable Forest Practice Rules in the State.
AIR POLLUTION SPECIALIST KATO: Staff does not expect the known plans and measures to achieve all of the reductions needed for the 2030 target. That means the focus of this scoping plan then shifts to identify how best to reduce the remaining emissions and achieve the target. Options include enhancing and extending existing programs, new programs, or prescriptive regulations in various sectors.

We are already seeing evidence that our current policies are working. And because of that, at this time, the staff preferred option to address the remaining emissions and achieve the 2030 target is the Cap-and-Trade Program with declining caps.

As part of the development of this scoping plan, staff will review and evaluate other options comparing them with the scoping plan objectives that I outlined earlier. The impacts and benefits, as well as associated costs, of those options will need to be evaluated to help determine which policies will comprise the preferred path forward.

AIR POLLUTION SPECIALIST KATO: In the coming months, there will be additional opportunities for public and stakeholder engagement for scoping plan development.
We are currently taking comments on the content of this scoping plan concept paper and overall strategy development. ARB staff will hold additional sector-specific workshops to hear stakeholder feedback on scenario modeling, measures to close the gap, the scope of the environmental analysis, and other related topics to inform the scoping plan.

ARB staff will also continue to hold additional technical workshops over the next few months on the economic analysis. ARB staff is also working with the California Department of Public Health, and we will continue our ongoing collaboration and coordination with their staff on the public health analysis for this scoping plan.

As I mentioned earlier, ARB staff is coordinating with the EJAC to hold several community meetings throughout the State over the next two months to get neighborhood level feedback on existing programs and future initiatives to support scoping plan goals and also understand the needs, priorities, and expectations of affected communities.

And as always, ARB staff is available to meet individually with stakeholders, as requested, to discuss not only ideas for broader strategies, but specific issues as well.
AIR POLLUTION SPECIALIST KATO: Regarding the schedule going forward, ARB staff will hold the additional sector-specific workshops in conjunction with sister agencies in the coming summer months. ARB staff will also continue to hold additional technical workshops over the next few months on the economic analysis. We anticipate that the draft 2030 target scoping plan, including the full environmental and economic analyses, will be ready in late summer 2016.

After release of the draft, ARB staff will hold regional workshops in the Bay Area, Los Angeles, the Central Valley, and other areas as needed to ensure a robust public process. The draft scoping plan will be accompanied by an informal 45-day public comment period. Staff will also provide formal written responses to comments received on the draft and final environmental analyses that accompany this scoping plan.

AIR POLLUTION SPECIALIST KATO: ARB staff is requesting that stakeholders please provide comments on the scoping plan concept paper by July 8, 2016 at 5:00 p.m. Links to submit both written comments and view all comments received can be found on ARB's scoping plan website at the URL listed on this slide.
I would like to emphasize again that additional opportunities to provide comments on scoping plan materials will be available at upcoming workshops.

This concludes my presentation. We would be happy to answer any questions the Board may have at this time, but first I would like to invite the representative from the Environmental Justice Advisory Committee to come up and provide comments.

MS. VALENZUELA GARCIA: Hello, and thank you for this special order. I was worried when my name wasn't on the list for public comment.

My name is Katie Valenzuela Garcia. I'm one of the co-chairs of your Environmental Justice Advisory Committee. And I've been elected by my colleagues to give you an update on our status for the 2030 scoping plan development.

Two days ago, the EJAC finalized and initial set of recommendations. These recommendations are not final, but are meant to provide initial guidance to staff on key issues or opportunities the EJAC would like to be addressed in the scoping plan. Our recommendations are based on thorough review of staff materials, practices and policies to date, best practices in research in our fields of work, as well as feedback from our local partners.

While many of our recommendations are within
ARB's authority, some are not. And as Stephanie mentioned, implementation of AB 32 involves local jurisdictions and other State agencies as well, and we would like to see that guidance included in the scoping plan more directly.

We see in our communities many opportunities to further strengthen AB 32 implementation to ensure all communities benefit from our policies and investments, and feel that addressing many of these opportunities as possible will be critical to us reaching our ambitious 2030 targets.

Since our recommendations are over 10 pages long, I won't read them to you today, but I do ask that staff circulate that to you when they're ready for circulation, which should be in the next week or so.

Our next step as mentioned is to provide a robust round of community workshops and to educate our neighbors on the scoping plan while also collecting important feedback on their priorities, concerns, and definitions of success for the 2030 target scoping plan. We're excited to be getting such tremendous support from ARB staff and our contractors for this process, and hope that the products of this outreach will directly inform our next round of recommendations later this summer.

It is our hope also that this engagement process
will set a model for what ARB can be doing in future rounds of public outreach for other plans and rule-making activities.

Now, before I conclude, I would like to raise one concern that arose after a brief presentation on the scoping plan given at our meeting earlier this week. It has been our understanding that while the overall process started in October of last year, the draft rule for cap and trade beyond 2020 would not be released until 2017 to allow time for the 2030 target scoping plan to be completed.

That understanding was confirmed when I looked back to staff's slide show presentations from Clean Power Plan and cap and trade workshops last fall and earlier this year. However, during our meeting this week, staff said that the draft rule would be released this summer, and would be adopted by the Board at the same time or shortly after you vote on the 2030 Target Scoping Plan.

We find it concerning that the process to extend cap and trade beyond 2020 would be so significantly underway before we've made substantial progress on the 2030 Target Scoping Plan, as part of that plan is to analyze whether and how cap and trade might continue, which should directly inform how staff moves forward on rule that extends cap and trade beyond 2020.
We would formally request that the Board direct staff to postpone the release of a draft rule until spring of 2017, as per their original timeline, to allow the scoping plan process to continue in good faith, that the considerable effort we are putting into this plan would significantly inform any rule that extends cap and trade beyond 2020.

Thank you.

CHAIR NICHOLS: Okay. Thank you.

Any comments, questions?

Okay. Thanks, Katie.

We have some people who have asked to come speak to us. And so I think we should probably just go to them next beginning with Brad Neff from PG&E. The list is up on the Board.

MR. NEFF: Thank you, Madam Chair, and members of the Board. My name is Brad Neff, and I'm here representing IETA, the International Emissions Trading Association. So as the name suggests, we are strongly in favor of continuing cap and trade post-2020. There is significant momentum for cap and trade around the world. There are currently 40 nations and 20 subnational governments representing 25 percent of global GHG emissions that are currently under a Cap-and-Trade Program, or carbon pricing program.
If you look to Paris, the Paris Agreement, Article 6 explicitly mentions market mechanisms. And within the next 18 months, we expect that globally there will be a doubling of the size of carbon markets around the world. So the direction is clear globally that there is a trend, and, of course, California is on the forefront of that trend. And much of that is thanks to the good work that you have done.

As staff has mentioned, this is a defining moment in California's strong history in environmental stewardship, and a time to strengthen cap and trade and support it as the backbone of California's climate policies.

As far as the scoping plan, we agree that this should be a holistic approach: That in order to, as staff has suggested, to fund the optimal suite of policies, we suggested that an analytical tool that can perform such optimization should be used for the evaluation of this suite of options, and that can also include pricing mechanisms, like cap and trade and a carbon tax, which currently PATHWAYS cannot do.

Just to reiterate cap and trade is the only policy that can -- that provides environmental certainty by capping emissions, assures least cost solutions are done first before more costly solutions, and responds
automatically to macroeconomic fluctuations.

So again, IETA is strongly in support of the continuation of cap and trade, and we look forward to continuing to work with you and collaborate with staff on the implementation and the continuation of that program. Thank you very much.

CHAIR NICHOLS: Thank you.

MR. BENGTSSAN: Good afternoon. Good Afternoon, Board, Madam Chair. Nathan Bengtssan here representing PG&E. As you probably well know, the draft scoping plan concept paper includes four post-2020 options for GHG emissions reductions regimes. And I just want to come and say that PG&E has long been supportive of well-design market-based mechanisms for achieving GHG reductions. And I'm here today to reiterate that support.

There's broad consensus among environmental economists that market-based mechanisms that put a price on GHG emissions, like California's Cap-and-Trade Program, provide the most effective path to lowering emissions, and they allow regulated entities the flexibility to make choices that help California meet its clean energy goals in a way that is cost effective to consumers and the State as a whole.

So that's what I'm here to say and I think we're happy to hear staff reiterate that they have a preference
in terms of the options that were laid out.

    Thanks very much.

    CHAIR NICHOLS:  Thanks.

    MR. LARREA:  Good afternoon, Madam Chairman and board. My name is John Larrea. I'm with the California League of Food Processors.

    Just today, I got a look at the concepts paper, and it's quite ambitious. And so knowing that, I think we need to plan even more for how we're going to get past 2020. One of the things I'd like to see, at least our industry would like to see, is more of an industrial presence, either on the Board or through an advisory committee. We're moving past 2020, and industry is going to be just as much a part of this and a part of making this work as the rest of the Californians. And we can provide a lot of input as part of the staff maybe even or an advisory committee along the lines of the EJAC itself, where we can look at these concepts before they're put out in the public, and we can make advisory attempts to that too.

    The other -- going forward, we're going to need a lot of help in order to make this work for food processors, those of us who are located, especially in the disadvantaged communities, which we are sometimes the major employers there. You know, the ambitiousness of
trying to reduce these emissions that much is going to impact these communities. And these communities are the ones that we're invested in as well. They're the people who come to work for us. We're the ones who keep those communities alive in many cases. And so these impacts really need to be studied really well as well. And we also need some help in terms of how we're going to get there technologically.

One of the things that we might be able to do is to reestablish the Economic and Technology Advancement Advisory Committee. That there is right next to the EJAC committee, and it also looks at the new technologies, not only here, but also in Europe, and investments that would work. We could examine the way that these various plans are going to work out and see what types of technologies are going to be there, and avoid the black box type of regulations that may be put into place where we're expecting this technology to come, but it never really does.

And as a food process, I can tell you, there's really no new technologies for boilers. That's our main process. And if we could find something that could reduce us and make us more efficient, say 50 percent more efficient, that would bring benefits, not only to the communities we operate in, but also to our markets as
well. So we'd like to see some of that, too.

Finally, the economic analysis that's coming, it really needs to be robust. It really does, if we're going to move forward on this, and it needs to take in more than just what the impacts of these are going to be. It needs to look at all the factors that are going to affect industry out there.

Just today, the PUC just passed a proceeding that's going to grant PG&E $3.6 billion in rate increases over the next three years. That's more than the cap and trade has collected in the last four. And, you know, those are the types of pressures that industry out there is going to have to deal with in terms of trying to get to where we're going.

So, you know, this is why industry needs to be a part of this process here, not just as a stakeholder making public comment.

Thank you.

CHAIR NICHOLS: Thank you.

(Laughter.)

CHAIR NICHOLS: You really set it off.

MR. EDGAR: I've got some new material today.

CHAIR NICHOLS: Hi.

MR. EDGAR: My name is Evan Edgar, California Compost Coalition and Clean Fleets Coalition. We are the
industry. We're here to help. We're at the table. We have the technology. We can take food waste and make carbon negative fuel. So everything about this plan we feel we can achieve. We support the 2030 goals, and we support cap and trade.

When it comes to composting, we take urban food waste and agricultural waste through anaerobic digestion and we make a biomethane. With the biomethane, we make a carbon negative fuel and put it right back into the fleets we operate.

The thing about our program is it's one of the most cost effective programs out there. They said we're nine bucks a ton as every cap and trade invested, and we intersect all five pillars as part of the intersect -- the integrated approach.

Number one, short-lived climate pollutants. We mitigate methane by getting food waste out of the landfill. We support that. Big landfills do not. Big landfill says they can't get it done. Well, we can get it done. We can divert 90 percent of the food waste out of the landfill by 2025 to make a low carbon fuel.

Number two, 50 percent reduction in petroleum. We're doing that right now. We're getting off diesel. We've done that this decade. We're moving on to CNG and we're make RNG. By 2025, our industry, the 15,000 fleet
of refuse and recycling trucks can get off diesel by 2025 with RNG, if we have a short-lived climate pollutants plan in place that bans organics from the landfill.

Number three, biomass energy. We have glut of biomass in a valley. They're burning it. We've got to have new technology, such as biomass gasification in order to achieve the 50 percent RPS. So all the composters, we have biomass. We're citing Phoenix Energy Biomass plants throughout California, which makes a biochar that we can blend with compost for the Health Soils Initiative.

Number -- another one is -- four is everyone of our facilities net zero. Well, let's double down on energy efficiency, so that we have net zero facilities.

And number five is digestate. When you take food waste and you anaerobically digest it, you get a digestate. We make compost out of it. We put it back in the soils. That's called the Healthy Soils Initiative. We have found out in the valley that reducing water use by 30 percent by using compost and biochar in the soil in order to have organic compost. We're doing that today.

So the industry is at the table. We have a good set of plans in 2030. We're working with staff. And we feel that we can do this. So we need a set of 2030 goals and we need cap and trade. I represent a lot of project developers, and our capital is being stalled out because
of the fact that signals in the marketplace on cap and trade has diminished.

We feel cap and trade needs to be robust, so this signals to industry we have the technologies, we have a lot of little green boxes. We don't need a big black box. That every little green box we have from anaerobic digestion to recover compost is working. We are no longer the waste industry with landfills, we are the refuse and recycling industry and composting.

Thank you.

CHAIR NICHOLS: Thanks.

MS. McGHEE: Good afternoon. My name is Lisa and I'm one of the off-site airport parking operators at San Diego. More State funding and more programs will and are needed. Penetration is key. Without funding to incentivize adoption, it is not likely. And without enhancement of a requirement to use cleaner technologies, we will just slow down opportunities. Focusing on the carbon score and vehicle miles traveled furthers the reduction opportunity of emissions.

Putting forth efforts of funding on those that travel the most and using enhanced renewable technology that is available today accomplishes the greatest reduction immediately.

Enforcing more renewables should be promoted and
incentivized sooner than later. All of the alternative fuel choices available, including electrification, does not have enough infrastructure to entice adoption of vehicles that are available and to provide a refueling -- and to provide a refueling corridor.

We need more deployment of infrastructure. We have vehicles and technology, but all of the low carbon fuels infrastructure are sparse and needs more action. For example, in 2009, I adopted biodiesel as my fuel in my diesel buses. There was only one refilling public station in San Diego. Today, there is only two, and it's seven years later.

2015, I adopted ZEV buses. Electrification infrastructure is challenging for fleets resulting in it being more costly per mile than conventional fuels due to demand rates, but how many understand this? Let me give you an example. Your kilowatt goes from $0.23 to $22 per kilowatt in a demand rate. So do the math. These are part of problems in electrification that are only experienced by plugging in two buses at one time.

The only -- today, there's only -- today, I'm the only San Diego bus operator after one year of early adoption. The actions by our utility service territories needs to be incorporated and should include an incentive for PEV charging, taking the approach, "Build it and they
will come". More efforts on renewable and infrastructure will play a part in penetration, thereby public health. It is safe to say there is much we do not know, thereby there is an opportunity to learn what we don't know. Let's incorporate more fleet programs and infrastructure.

Thank you.

CHAIR NICHOLS:

MS. ROZOWSKI-VOGT: Good afternoon. I'm Hannah Rozowski-Vogt with the Environmental Defense Fund. And I'd first like to start today by thanking everyone at the ARB for the work that they've done on the scoping plan, and for the commitment that it represents to ambitious climate action.

We would also like to state our preference for concept one of the four that are laid out in the scoping paper. We believe this represents an extension of the existing suite of policies, including cap and trade, which will best for California. We believe this is the best way forward, because California's climate policies have been working together effectively. As the emissions inventory released with this concept paper showed emissions are already declining, and at the same time our economy is thriving.

We believe cap and trade is an essential part of
California's climate package, because it is the only policy that places an absolute limit on carbon pollution and ensures we meet State reduction targets with cost effective reductions. We also believe that cap and trade is important, because the linkages possible through cap and trade facilitate international collaboration.

Again, thank you for all the work you guys have done.

CHAIR NICHOLS: Thank you.

MR. MAGAVERN: I'm Bill Magavern with the Coalition for Clean Air. I thought this was an interesting paper, and I really liked the holistic approach. One of the things I took from it is we have a comprehensive suite of policies that are working and that in order to keep the emissions reduction going down to the 23 target, we need to build on and strengthen those policies. So in the electricity and building sectors, we have that mandated by SB 350 and ARB has within its authority the ability to also strengthen those policies for the transportation and industrial sectors.

In transportation, as you know, we need to build on the success of our Clean Cars Program, zero emission vehicles standards, we need to implement the Freight Action Plan, strengthen then Low Carbon Fuel Standard, and invest in public transit and active transportation to
reduce vehicle miles traveled.

I think we also need to pay more attention to reducing emissions from the industrial sector, which has somewhat lagged in reductions. And then, also in looking at the concepts, this is the first time that I can remember when ARB has actually put forward ways that we could get to our target emission reductions in the absence of cap and trade. So I thought from analytical perspective that's a real step forward, and I hope that you will seriously consider concepts 2 and 3, because they show that by continuing to have standards that reduce emissions in the transportation and industrial sectors, we can get to where we need to go.

And I think that I would prefer some kind of hybrid between the two, because I would hate to choose between the transportation and industrial sectors, when we need to reduce emissions in both of those.

So I look forward to continuing this work with you.

CHAIR NICHOLS: Great.

MR. SMITH: Good afternoon. Adam Smith with Southern California Edison. I'm just here to continue Southern California Edison's support for the Cap-and-Trade Program, and express that our preferred option is also the preferred option of ARB staff. And I think you're heard
from a couple other stakeholders here.

We view cap and trade as not just a cornerstone of our State's climate policy, but kind of the backbone. It doesn't just achieve emission reductions. It also kind of vouch safes that we'll achieve the overall economy-wide goals that we've set for ourselves.

Southern California Edison realizes that as we continue to March down the path to 2030 and 2050, electricity is going to be more and more utilized as an end-use fuel. And it will have to be increasingly clean in order to achieve the goals which we've been laying out in this concept paper. That's a vision that we support and we look forward to participating in.

Thanks.

CHAIR NICHOLS: Thank you.

MS. FRIEDMAN: Madam Chair, Board members, Randal Friedman. I'm here as an individual, and an EV owner, and an EV activist. I've been working with a group called Sac EV, and several other groups across the State in the issue of EV infrastructure. And I know I've talked with you several times in the past. And I'm first saying that there is some good news there. I'd certainly recognize Supervisor Serna, because he personally championed the now open level 3 charger at Sacramento Airport. And there's a ribbon cutting next month that I would like to see some of
you there at. It truly is one of the most needed in this legion.

We also put together a proposal that the Energy Commission adopted, and they're now implementing the north/south corridor chargers along Highway 99. Again, all very good news.

Having said that, and listening through today and understanding just how central the ZEV program is to this 2030 goal, there's still a significant way to go. I'm happy with -- I just got a 2016 Nissan Leaf. I now have a range of 120 miles and it's wonderful, except I looked at the map and I still can't really get to Paso Robles for a trip to the wine country there. There still isn't just the infrastructure even for this generation of cars.

I also listened to how much you talked about a great program to incentivize used EVs, like the 2012 Leaf that I traded in. They are truly bargains, and they would be wonderful for low-income residents of places like the San Joaquin Valley to be able to purchase.

But with only a 50 or 60 mile usable range, they truly do need the public charging infrastructure to make that program work, and again, it's not there. So I would suggest in the scoping plan that you really focus on the public infrastructure element of the ZEV Program. Someone needs to take ownership and leadership in this. And I
think you are probably the only ones in a position to do that.

And there's a lot of people out there that will certainly help you. We've certainly suggested in the past that there needs to be a statewide EV Infrastructure Advisory Group that can work based upon real user experience and the expertise to work with the policymakers to actually say this is what's needed, these are the standards that are needed. When you're putting a charger in the San Joaquin Valley make sure it's heat resistant and will be dependable, if that's the only place you'll be able to charge for 50 or 60 miles.

Finally, since we heard a lot from the EJ community here, I would also just like you to consider public EV infrastructure is an EJ issue. Just look at the PlugShare map or the ChargePoint map at the number of chargers in the Bay Area our Silicon Valley versus Fresno, and think about, okay, if you own an EV in Sunnyvale, you've got all sorts of places to charge. If you own an EV in Fresno, you're very, very limited.

And I truly believe that's an EV issue that in your scoping plan you should address. So there's a lot of people willing to help and would love to see ARB take leadership in this.

Thank you.
CHAIR NICHOLS: Thank you.

MS. SULLIVAN: Good afternoon, Chair Nichols and Board. I am Shelly Sullivan with the Climate Change Policy Coalition. I am not Julia Vessey.

CHAIR NICHOLS: I was going to say unless you had changed dramatically.

(Laughter.)

MS. SULLIVAN: No, but she was kind enough to give me her spot.

CHAIR NICHOLS: Okay.

MS. SULLIVAN: We're just looking for a little bit of clarification with regard to Washington State. We know that they've recently re-released its revised cap proposal. And that rule contains -- continues to contemplate providing Washington covered entities the ability to use California's cap-and-trade allowances to comply with the Washington State rule. And since this is a one-way linkage, and it would have impact on California's Cap-and-Trade Program, how is ARB staff evaluating the impact, both from an economic perspective as well as an environmental perspective? That's something that, you know, we're very curious about. We know that Reggie is currently evaluating what it would mean for his program. And we didn't see anything like that in the concept paper, realizing that the concept paper is just
that, a concept paper.

And obviously, we look forward to commenting on that further and moving forward with additional work on the concept paper. But that's one thing that we did want some clarification for, and we also wanted to know that, you know, we agree with IETA and the others that were in support of the cap-and-trade system.

So that's -- basically, we're just looking for more clarification on that issue.

Thank you.

CHAIR NICHOLS: Thank you. So is that the end of the folks who actually want to speak?

Okay. Well, then we can draw this back for some further discussion.

If the staff wants to respond to the questions as to what's going on in Washington State and what we know about it, I know Michael Gibbs, I think, has been actively involved in those discussions. Michael, you can defer if you want to, but since you're the person that I last talked to about this issue, you get to address it, at least to start with.

ASSISTANT EXECUTIVE OFFICER GIBBS: Sure. Thank you. And thanks for the question, and for the opportunity to speak about it. You're probably familiar that the State of Washington has put forward a regulation to
addresses greenhouse gas emissions in their State. It is not a Cap-and-Trade Program, but it's a limit on individual facilities with a declining cap on each facility.

Recognizing that there may be limited opportunities for individual facilities to reduce emissions at the rate that they're specifying, they included in their proposal the opportunity to use compliance instruments from other programs. They don't specifically list the California program, the Cap-and-Trade Program, in their most recent release. But in discussions with them, we understand that that is, in fact, their intent.

Before California allowances would become eligible in their program, their agency, the Department of Environmental Quality, would be -- or, sorry, the Department of Ecology would be required to make a determination that the California program is, in fact, eligible for use in their program.

So from our perspective, we have corresponded to understand what it would mean for another program, such as Washington, to access compliance instruments from our program, and what it would do in terms of the costs to our compliance entities as well as any other linked partners that we have, such as Quebec, currently linked, and the
program that's being developed in the Province of Ontario that will be considering whether they're appropriate to link with in the near future.

So we are examining that, of course, and we'll be looking at it from both the economic and environmental perspective. One of the things that we're looking at, in terms of our own program, is ensuring that we have control over what our allowances can actually be used for.

Currently, there is no prohibition in the program regulation that prohibits anyone from purchasing and retiring instruments in our program. And that's reasonable and we can talk about that. But when it becomes another program, such as a State program, that deliberately wants to use our instruments, that's another matter.

And so what we are looking at is including in our regulatory amendments to be considered is creating a section that would list other programs that are eligible to use our programs for their compliance. And by adding that to the regulation, we would be stating specifically which programs are eligible to use our instruments. And if you're not on the list, then you would not be eligible to use them.

So that's a way to maintain control over the instruments in the program. And we think that that is
something worth considering and we'll put forward to get feedback and comment on.

As part of then once you have assured control, you can then assess whether you want to support the type of one-way linking that Washington has put forward. And that's the analysis that we would then subsequently do to assess whether that would be beneficial for the State and beneficial for the furtherance of climate action across multiple jurisdictions.

CHAIR NICHOLS: So one of the consequences of being a leader in this space is that things that California has pioneered are now being picked up and looked at and potentially adopted not necessarily in exactly the way we might wish them to be, but in order to adapt to the political and economic conditions in other jurisdictions.

And it certainly is one of the reasons why we have always said that we hoped that there would be a national program addressing climate change that our State program could be a part of and adapt to, rather than, you know, continuing to always have to be responsible, if you will, for what everybody else is doing.

But until that wonderful day arrives, we find ourselves in the position of having to be, and wanting to be, responsive to people literally all over the world, who
come to California or ask us to go there and talk to them about how they can create effective climate programs of their own.

So it's a big responsibility that we've undertaken, but I think it's important that we acknowledge that we are moving the needle, not just by what we do in California, which is our number one responsibility to do whatever we do here successfully, but also that we recognize the impact that what we're doing is having on other people and their visions of what they can do as well.

I just want to say a couple things about this paper, because I find it both exciting and also, frankly, somewhat scary. And the reason why it's somewhat scary is that thinking out loud is always scary, especially when government does it.

(Laughter.)

CHAIR NICHOLS: We have opened ourselves up in a very unusual way to people coming to us with ideas both for what they like and what they don't like about what we're currently doing and what they think we should consider if we were to dramatically change everything that we're doing.

And I think it's good to do that, because I think you should always be engaged in the process of criticizing
and accepting criticism for what is going on and what could be better.

    At the same time, I wouldn't want anybody to be under and illusion that we're going to stop the world while we develop the new scoping plan. We are implementing a number of very big, costly, important regulations as part of our existing climate program, of which the Cap-and-Trade Program is certainly one, and an important one, but not the only one. Oregon has adopted California's Low Carbon Fuel Standard.

    And under any potential scenario that I can think of, we're going to need not only to continue that Low Carbon Fuel Standard, but actually to increase the amount of clean fuel that we are requiring under that program. The Renewable Portfolio Standard, we were lapped. You know, we started out with a certain number, and now we're coming up with a more ambitious number, layered on top of a Cap-and-Trade Program, so that they -- our electric generating sector is subject to multiple different requirements, and yet that program is also operating in a way that's pushing change, and, in fact, the change is probably happening even before that regulation. I mean, ahead of -- ahead of that regulation taking effect, thanks in part to the Clean Power Plan.

    The emission standards for motor vehicles, and
I'm naming three of our big regulatory programs that certainly taken together are responsible for more total emissions reductions than the Cap-and-Trade Program. The Vehicle Emissions Program in the midst of a review that we're undertaking with the Obama administration, we're going to be hearing more about that in the months to come.

But it turns out that the greenhouse gas emission standards that were adopted nationally, based on our original Pavley standards, probably aren't ambitious enough. I mean, they're certainly not ambitious enough to meet the goals that we have for decarbonizing our economy, and they're probably not as ambitious as they should be in terms of what the industry actually could accomplish, even with existing known technology.

So the world is racing ahead, and we have the opportunity to help push it further and channel it in ways that will overall work best for achieving the kind of very, very low carbon economy that we need to see. But I don't want to lead anybody to think that the fact that we're open to thinking about rebalancing any of these, or doing them in different combinations, or adding new elements to it, means that we're not going to continue working to improve these regulatory programs, regardless of where we are in the scoping plan.

And I want that message to be conveyed very
respectfully, but also very clearly to all of our advisors, not only the environmental justice advisors who I know have strong concerns about cap and trade as one of the tools that we use, but to our various other economic sectors that are interested as well, that the scoping plan is the place where we could come together and sort of look at the mix of all of these measures. But we're on a target to -- we're on a path to continue to improve the program that we have and to implement it effectively. And that's not going to be able to nor should it wait while we work on the scoping plan.

It's too important for the goals that we've set for ourselves. It's too important to the country, frankly. If you look at the commitments that the United States government has made to the Paris agreement, and that other countries are making, we need these measures that we're implementing right now. So I just think it's a tough thing, because every year -- at least every two years, we get a new crop of elected representatives in the State and the federal level, many of whom have no idea really what this whole program is. And that's not their fault. That's at least as much our responsibility as anybody else's.

But it makes me wonder whether we don't need to kind of do perhaps as a separate piece, you know, another
round of explanation of what this scoping plan -- what this 2030 program comes on top of, because I think we tend to assume that people understand everything that we're -- that we're doing now as part of our -- as part of our climate action program, and how that meshes with our other environmental and energy programs.

I think the scoping -- the current version was a -- tried to, you know, allude to those things, but it's a complicated story to tell. And maybe we need to find some better ways of telling the story.

But anyhow, that's just some general observations and thoughts. I'm sure other Board members have questions and/or comments that they would like to convey starting with Mr. Serna.

BOARD MEMBER SERNA: Thank you, Chair Nichols. I just want to use this opportunity, first of all, again to thank staff for a job well done thus far on what has been referenced to as very complicated and a scary subject. But I also wanted to note, especially -- and thank Katie Valenzuela, who I think is hiding back there, from our EJAC. And the fact that she mentioned ongoing collaboration, cooperation with staff, I'm glad to hear that coming from our Environmental Justice Advisory Committee.

But I also wanted to take the opportunity to
thank, and I'm looking directly at Mr. Corey, his taking
very seriously some of the early feedback that we received
from this newly reconstituted EJAC about, not just the
roles, the expectations of our Environmental Justice
Advisory Committee as it relates to this particular
document moving forward, but, you know, where -- how can
we really kind of push the envelope to really make the
best use of their advice, their counsel, and also just
doing some small things, taking care of some low-hanging
fruit as it were, in terms of making sure that our EJAC is
flanked appropriately with our various contractors and the
roles that they play to assist the Committee and
ourselves.

So again, just thanks to both staff, especially
Mr. Corey, and also to Katie who I'm hoping will convey
our thanks to the entire Committee.

CHAIR NICHOLS: Thank you. Well said.

Appreciate it. Anybody else?

Yes, Ms. Mitchell.

BOARD MEMBER MITCHELL: One of the commenters
mentioned that it would be a good idea to have an
industrial presence on the effort that we're making here.
And I couldn't agree more. He also mentioned that
technology is important for industry. And I think that is
a very good suggestion that was made. We need to work
with the industries that are going to put into place these measures that will get us to the targets.

And so they need to be at the table. They understand better than many people what their industry is doing now, and what it can do. With help from our scientists in the technology field, we can work together to move the technology forward, so maybe we can find something better than just boilers. And I think that's important. We've certainly done that in other industries. We've moved forward with new technologies that none of us dreamed of.

CHAIR NICHOLS: Excuse me, I didn't mean to interrupt you I was going to build on what you said. AB 32 contained in it a requirement, not only for an EJAC, but also an ETAAC. And there was an ETAAC. It was very active, and they did a report. At the time that they concluded their work, they disbanded, basically because they had given us their best advice. They'd done a lot of good work and we picked up quite a bit of it. You know, parts of it were certainly still left hanging.

And I was thinking as we were listening to the presentation and the comments from Mr. Larrea, that it probably would behoove us to reconstitute the ETAAC perhaps in a different form, but to give them -- to give some entity like that a formal role again. It's -- I know
that it requires work to manage a committee like that appropriately, and obviously also requires help from individuals willing to serve in that kind of capacity.

But I think we've got a lot of people in the State with the ability to contribute. And it would be great to take advantage of some of that experience that's out there in kind of a focused way to work through some these issues that we've now identified as being key. So I very much want to associate myself with your comment.

So thanks.

BOARD MEMBER MITCHELL: The other thing I want to mention is that how valuable the report is, because I know all of us get questions about, well, you're doing all this work on greenhouse gas reduction, but where are you? Do you -- have you done it? You know, how far along are you? And the charts that we have in front of us help explain that. And that's important to the public to see what we've accomplished, what we still have to accomplish, but to kind of give us a measuring stick of what we're doing, I thank you very much for that.

CHAIR NICHOLS: Dr. Balmes.

BOARD MEMBER BALMES: Thank you, Madam Chair.

So I, too, want to congratulate the staff on a report that, to me, shows there's been a continuing evolution in our thinking with regard to the scoping plan.
I remember the first one and the update. And the first one I had to fight literally, practically, to get public health in the document and to get us to collaborate with our colleagues in CDPH. And I understood from my briefing yesterday that CDPH has been -- had active input into this.

And I see that in, whatever it is, slide 10, the objectives that improved public health is, you know, number 5 or 6. So I like that. And I wanted to both agree with Supervisor Serna that it's great to see EJAC at the table and here today. Even if I'm not entirely sure that I agree with them about cap and trade, I think their input is important in that regard.

And I also agree with Ms. Mitchell and Chair Nichols about having some kind of stakeholder committee for business and industrial input. I think it was well said that -- by Mr. Larrea that in the future we're really going to have to push on industrial sources. So we need them at the table to figure out the best way to do that. So we're continuing to promote a resilient economic growth, which was a number four on our list of objectives.

The final comment I would like to make is that some of you know that adaptive management is near and dear to my heart. Another thing, I fought for with the original scoping plan. It had a different name then. But
I think that's still something that -- you know, maybe that's too far in the weeds here for this scoping plan document. But I don't want to forget that we're -- with every effort to reduce greenhouse gases from the largest emitters, we should also be concerned about toxic emissions.

And the last time I heard an update on our adaptive management program, I was, you know, pleased that we were moving forward, but I don't want to forget it in this round.

CHAIR NICHOLS: Thanks.

Other comments?

You know, I realized, and unfortunately Katie left, but I was focusing on her comment about cap and trade, but it was really much more broadly intended, because I've been reading some of the press about people's assessment that the program is in jeopardy or that it might not continue, because the last auction didn't sell out all of the allowances that were available. And I have been talking to some reporters, and I've now seen other people weighing in, which is very helpful, with the explanation that the fact that there were allowances that didn't -- that were sold -- offered at auction that weren't sold. Doesn't say anything about the overall success of the program and what it's accomplishing.
And not to go into that any further here, but just to say that, you know, the staff continues to look at ways to make that program work better, and there are options, even within a Cap-and-Trade Program, for example. You know, we didn't -- we could auction all the allowances. We don't have to do them the way we do them with respect to -- we can make the utility holders of all the industry allowances and not give any allowances to everybody who's affected.

So there's just -- there's multiple ways you could design a program. I'm not suggesting that we should be doing any of them. It's just that it's a -- it's always good when you're thinking about moving forward to think about what those options might be.

VICE CHAIR BERG: As I'm sitting here reflecting on when we first started the scoping plan and how really the fear was the blank page, we were starting from the beginning and it seemed very overwhelming. And then I look at chart 17 where we see the progress we've made, but I see the big dip that we need for 2030, and even a bigger dip for 2050. And we have, as Chair Nichols said, we have a very good foundation, but that foundation is not going to look the same by 2030.

So I haven't decided which is more anxiety-ridden, starting with a full blank page or knowing
that we now have to create the blank page on a foundation. And to me that's where the real opportunity is is to see in our concept paper how do we leave things open enough and creative enough, look innovatively enough while, as Chair Nichols said, we are focusing on the very important programs that we know are going to get us there for the next several years, and knowing that the landscape by 2030, and certainly by 2050, is going to be brand new.

So it's just a huge, huge challenge, and I congratulate you all. I know it keeps me up sometimes at night, but it really is exciting.

And so congratulations.

CHAIR NICHOLS: Great. Hector.

BOARD MEMBER DE LA TORRE: This isn't our scoping plan, but it's interesting to know what other people are doing. Norway has committed to having zero sales of gasoline vehicles in their country by 2025, and zero deforestation by the middle of the next decade.

BOARD MEMBER BALMES: Are they going to stop extracting oil? Are they going to stop extracting oil? They're a major oil producer.

BOARD MEMBER DE LA TORRE: Are an oil producer, yes. (Laughter.)

BOARD MEMBER DE LA TORRE: But those are two major initiatives on their part. And it certainly shows
that other countries and other jurisdictions are doing things well above and beyond what we're doing, even though we are always held up as doing all these extreme things by some people.

Clearly, other folks are doing a lot in this space. And it's good to, you know, put it in context of what other people are doing. Of course, some people are doing nothing, but we're not on the edge. We're out there, but not on the edge. And we will continue to push the envelope, I think.

CHAIR NICHOLS: Okay.

BOARD MEMBER TAKVORIAN: Thank you. So I wanted to thank the staff. I think it's a great beginning concept paper. It's broad. It's comprehensive. It's complicated. And I also wanted to piggyback on Supervisor Serna's comments about the EJAC. They're doing an amazing job. I've been able to go to the last couple of meetings. And the EJAC members, working on a volunteer basis, are meeting for days at a time. They have conference calls that I don't know who can keep up with, but staff is keeping up with them. They're doing these deep dives into each of the topics areas, and are really learning about them. And they do have, I don't know, 15 pages of recommendations at this point that they're moving through.

So I really appreciate the staff taking this very
seriously. And I remember being on the first EJAC when
the -- I didn't remember the name of it, ITAC[sic] had
lots of people and lots of staff, and EJAC had no staff
and it was just us sitting around trying to figure out
what to do. So it's interesting that things have shifted
a bit.

So I think that we certainly do need to focus on
the industrial sector, and if that task force needs to be
reconstituted or something like that, I would certainly
support that. I think they need to be there.

I do wonder though about the -- oh, and I just
want to say, we have mentioned it just a little bit, but
there's how many, 10, 12, meetings that are going to occur
around the State. That's unprecedented. And I just want
to express my deep appreciation to the EJAC and to the
staff to Trish especially. She's been working
particularly hard to make that happen. And I think we're
going to get a lot of good input. So that leads me to
questions about the timeline that I have concerns about,
and -- because I want to ensure that those workshop
comments are definitely incorporated into the scoping
plan. And then you have the fall workshops that are
outlined, and it just seems like the different versions of
the scoping plan come right on the heels of these
workshops. So I'd like to get a clearer sense about the
timeline.

I also want to make sure that the OEHHA report that will come forward on the benefits and the outcomes that's due out at the end of the year is incorporated. And I may have missed it, but I'm not sure how that was described in terms of the timeline.

So I'm worried about how that timeline proceeds. And I don't think that we're asking for any of the rules as Mary -- Chair Nichols, you have mentioned. Those aren't what are being asked to be delayed, but those things that are important to inform the scoping plan, I think, are important to make sure that they're completed, so that there can be full analysis.

And I did take that as what Katie's question was. And I would want to ask staff if we could get a response in regards to the continuation on cap and trade or the extension of cap and trade, and how that's going to intersect with the scoping plan.

I would also say that I hope we really do take concepts 2 and 3 seriously, and that we have an authentic conversation about them. I was heartened to see them in the concept paper. And I think as transportation being the largest sector of GHGs at 36 percent, we need to continue with our efforts with cars and trucks and freight and buses, but we also need to make a paradigm shift from
cleaner vehicles and fuels to transit and alternative transportation. And that's going to require involvement in land use, and that's complicated and very local in nature.

But I think that then also relates to SB 375 and how this program relates to that and those targets, and when those are upgraded.

And secondly, again, the industrial sector is important, the second largest at 21 percent. And this is critically important to fence-line communities and has particular public health benefits as you all have noted here.

So I think this is an incredibly great start, and I'm really looking forward to the robust conversations that I know will follow. And so if we could get -- if I could get a response to some of the timeline issues, that would be fantastic.

Thank you.

DEPUTY EXECUTIVE OFFICER CHANG: All right. So on the timeline issues, I think there were kind of two sets of issues. And one was related to making sure that input from the community workshops over the summer and that input from the OEHHA assessment would be included into the scoping plan process.

The timeline for the community workshops is...
approximately equal to the timeline for the other workshops that we're going to be having over the summer, as we continue to flesh out the scoping plan. So we're going to continue to have workshops looking at various sectors, looking in addition at the economic modeling, and also the community workshops.

So the intention is that all of that input goes into the draft scoping plan that will be released at the end of the summer or early in the fall.

With regard to the OEHHA assessment of the impacts of AB 32 that's due at the end of the year, one of the -- the way that the process is designed, it is designed that we'll be -- we've been -- well, let me back up and say we've been working closely with OEHHA to understand the kinds of analyses that they're going to be doing, and it is intended -- the timeline is intended that we would have time to adjust in the scoping plan process, between the end of the year and the consideration of the final scoping plan by the Board in the spring.

So -- and then the other thing that I would say is that we do intend -- the process is designed so that the Board would take final action on the scoping plan, and the path forward post-2020 in the scoping plan, before the Board takes final action on the cap-and-trade amendments.

BOARD MEMBER TAKVORIAN: But if I understand it
correctly, the OEHHA report is due out at the end of the year, so the end of December, and the final action from the Board on the scoping plan is due in March 2017?

DEPUTY EXECUTIVE OFFICER CHANG: Yes, in the spring

BOARD MEMBER TAKVORIAN: Yeah. It just seems like a short timeline for you all to do that analysis and incorporate it into the scoping plan for you to get --

CHAIR NICHOLS: I don't think it's going to come to them as a surprise when they get it. I think there will have been interaction before. I mean, we don't wait till something is published or, you know, submitted to us in a formal fashion by U.S. mail. There's going to be a fair amount of knowledge, if not total knowledge, of what's actually coming before it actually arrives. I mean, these are dates that are sort of intended to, you know, formally tell you when the process is going to move along. But I think information is coming in on a much more ongoing and rapid basis as this evolves.

I guess the other thing though is I feel that a lot of information that's going to come in, not only from the community workshops, but, you know, from all the workshops, is going to be relevant to things other than the scoping plan. That's -- we act as though the scoping plan was sort of the be-all and end-all. And it is the
place where we put together our plan for meeting our climate targets, without a doubt.

But a lot of the concerns that I've heard raised, certainly in my more limited interactions with the EJAC, for example, relate to other aspects of our program, what we're doing in our regular old day-to-day work on air pollution, which is also critically important, if not more important. And so we're going to need to act on those things, not wait around for the scoping plan to be coming forward, but, you know, acknowledging those comments where they fit somewhere else and trying to pick up on them in other places as well.

Yes, please.

BOARD MEMBER SHERRIFFS: A small question sharing Dr. Balmes passion for health. Can you speak a little bit more about the coordination with the California Department of Public Health on the scoping plan?

INDUSTRIAL STRATEGIES DIVISION ASSISTANT CHIEF SAHOTA: Good afternoon. Yes. So the California Department of Public Health is very eager and very knowledgeable in this area, and we've had several meetings with them. We've been talking about studies and information about what are the best ways to make sure that we're dealing with equities to health and services that are really important when you think about vulnerable
They've educated us that some of the key indicators are really related to economics, as well as access to services. So as we are working through the development of the scenarios and the policies, we are coordinating with them to see what additional supporting information they can provide to indicate the benefits of those policies and measures.

They have a group of about six folks there, a whole unit that is solely looking at helping us on the scoping plan on this go-around.

BOARD MEMBER SHERIFFS: Thank you.

CHAIR NICHOLS: All right. Okay. Thank you. This is just the beginning of a long process. And speaking on behalf of the staff, I think it's fair to say that they expect to hear from Board members, not only formally at the meetings, but along the way as well. Everyone of you has connects, has interests, has concerns in people that you talk to in areas that you represent. And so I hope you will -- I encourage you to talk to me, as well as to the staff, about issues as they come up, so we can make sure that they are being incorporated into the work.

I have two more quick things to do before we can go. The first is that we are losing a key member of our
staff to retirement. These things happen, but it's
important to take account of them when they do. This is
someone who's very modest and has been unwilling to accept
any kind of celebration of her service to us, but it would
be remiss of us to leave today without acknowledging that
our supervisor in charge of all of our regulatory
compliance activities, the technical work that goes into
running the administrative regulatory side of this
organization, all those deadlines and notices and
timelines and things that have to be met as well as the
clerk position for the Board has been under the direction
of Lori Andreoni, who was once the Board Clerk herself.

And so, Lori, I think -- at least I hope you will
let us recognize you and thank for your terrific service
to this organization, and wishing you the very best in
your retirement.

Thank you so much.

(Applause.)

BOARD MEMBER BALMES: I, for one, will miss your
smile.

CHAIR NICHOLS: Yes, indeed.

We have one person who signed up for the open
public comment period. Larry Hopkins, director of
training for the Operating Engineers Training Trust in
Southern California.
Is he here?

Mr. Hopkins?

Well, since he appears to have decided to leave, we'll just keep his card. And I think that's it then.

Thank you all very much.

Good meeting.

(Thereupon the Air Resources Board adjourned at 4:13 p.m.)
CERTIFICATE OF REPORTER

I, JAMES F. PETERS, a Certified Shorthand Reporter of the State of California, do hereby certify:

That I am a disinterested person herein; that the foregoing California Air Resources Board meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California, and was thereafter transcribed, under my direction, by computer-assisted transcription;

I further certify that I am not of counsel or attorney for any of the parties to said meeting nor in any way interested in the outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 5th day of July, 2016.

[Signature]

JAMES F. PETERS, CSR
Certified Shorthand Reporter
License No. 10063